

THE  
ART  
OF  
SURGERY:

In which is laid down

Such a general IDEA of the same, as  
is founded upon REASON, confirm'd  
by PRACTICE, and farther illu-  
strated with many *singular and rare*  
*Cases* MEDICO-CHIRURGICAL.

In Two VOLUMES.

WITH AN  
*Introductory INDEX,*  
SHEWING

The CONTENTS of each, and a double  
TABLE at the Close; the former *Histo-*  
*rical*, referring to the Cases: The latter  
*Ætiological*, explaining of hard Words in-  
terpersed in the several PARTS.

---

Ὁ Βίϐ Bεγκύς, ἢ ὃ τέχνη μακρὴ ὃ ὃ καιρὸς  
Ὁξύς ἢ ὃ πείρα σφαλερὴ, ἢ ὃ κείσις χαλεπή.  
Hippoc. pars primi Aphor.

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By DANIEL TURNER, of the  
*College of Physicians of London.*

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VOL. II.

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T H E





THE  
ART OF SURGERY.

VOL. II.

SECT. VI.

Of Ulcers in general.



IN our two last Sections, we began and finish'd our Account of *Wounds* in general, as well as those of the particular Parts: In this I shall entertain you with that of *Ulcers*, intending to be more brief, and to shut up herein all I have to offer upon this Head. Whether or no this Discourse should nor have preceded the two former, according to the Method of some Writers, may be disputed. But I having ty'd my self to no particular President, do think the same as well observed now, and that there will be found as many *Ulcers* that are owing to *Wounds* neglected, ill condition'd, or ignorantly handled, as to *Abscesses* or *Apostems*, or other Accidents whether External or Internal; letting this pass.

This Disease, which in Greek is called *ἡλκῆ*, by the Latines *Ulcus*, may be defin'd also, as the *Wound*, a *Solution of the Continuum in any part of the Body*, but occasion'd by some sharp Humour eating into and corrupting the Frame or Texture thereof, which said Humour does in a Manner as essentially difference the *Ulcer*, as the inflicting Instrument the *Wound*.

The Ulcer  
defin'd, with  
their Causes  
and differences.

And thus where the same is thin and Sanious, like Water wherein raw Flesh has been steeped, called *Gleet*, *Ichor*, also *Sanies*, it may be called a *Gleeting*, *Ichoruos*, but is usually a *Sanious Ulcer*, when more thick and viscid, sticking like a sort of *Gluten* to the Bottom, and termed *Sordes*, it goes under the Appellation of a *fordid Ulcer*. Again, when Matter of mean consistence, called *Pus* flows in large quantity, it is known by that of a *purulent Ulcer*.

From the Humour likewise grown Corrosive, fretting and spreading farther, comes the *depascent or eating and serpiginous Ulcers*, as those *Epithets* imply in their *Etymology*. From the milder, or the nutritive Juice luxuriant, and abounding in the same, the *fungous Ulcer*, or the *Ulcer with spongy Flesh*.

From the attending *Intemperies*, as if hot and dry, ensues the *Ulcer with Pain and Fluxion*: If cold and moist, the *putrid Ulcer*: From Contagion or Infection ariseth the *Pestilential* and *Venerreal Ulcer*.

There are many Accidents also or Symptoms with which this Disease is complicate, and from whence it is denominated.

Thus, when the Juices flowing to the same, that should be turned into Matter, either for its Digestion, or good Flesh for its Incarnising, are by the foregoing *Intemperies*, condens'd and harden'd round about the sides or edges, the *Callous Ulcer* is produced.

When the Matter hath insinuated it self under the Skin or Flesh, as is common after *ApoSTEMs*,  
from

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from the *Sinuosity* or hollownes thereby occasion'd, we pronounce it a *Sinuous Ulcer*, which after some time growing narrower, and hard, for want of timely opening, or seated where the same is hazardous, as about the *Joynts*, among the *Ligaments* and *Tendons*, near the *Groyn* or *Arm-pits*, or penetrating into the Cavities of the Body, *hard* I say, not only at its entrance, but through its whole Passage, like a Pipe; it is thence distinguish'd by the Word *Fistula*, or is a *fistulous Ulcer*.

If situate close upon, or fed by some knotty obstructed Vein, we call *Varix*, it borrows thence its *Epithet* of a *varicous Ulcer*.

When by the virulency or malignity of the Humour it self internally, the cold Air, or other occasion externally, the cover of the Bone is eaten of, and the Bone it self contaminated or eroded by a *Caries* or rottenness thereof thence arising, it is stiled a *Carious Ulcer*.

Farther, from the *Figure*, we say an Ulcer is *Round*, *Angular*, *Even*, *Jagged*, *Superficial* or *Profound*, which last is also described as with *loss of Substance*.

By *Age* or time of its Continuance, it is *recent* and *mild*, and *old*, [or as it is call'd by some of our Authors, *Annual*,] and *Rebellious*.

It would be too tedious and almost endless, to enumerate the Circumstances that diversify one way or other this Disease, which by the Antients had most of them accordingly their Denominations originally from the *Greek Tongue*, without a Knowledge of which, at least so far as to come at the derivation of our common Terms, tho' I can allow a Man may be a good Artist, yet but a lame *Theorist*, talking daily many Words like a *Parrot*, which he knows not the meaning of; and this I mention not, I protest to you, by way of reflection, for I know many of you to be good Scholars,



as well as excellent Artists, but as a Spur to excite the Industry of such as are wanting in this Knowledge of the learned Languages, to obtain by all means so much thereof as may give them some *Idea* of the *Ætymology*, or ground of the Phrases they must continually converse with: As for Instance, when they read of one *Ulcer* being called *Noma*, a putrid one so named by the old Writers, they may perceive it has that Name, ἀ νέμω *depaſco*, an other of like corrosive Nature, *Phagedæna* ἀ φάγω *edu*, as formerly remark'd: a *Dysepulotic Ulcer*, is so termed ἐξ ὁδὸς *difficile*, ἐπὶ *super*, ὃν οὐκ *integer*, from its difficulty to be brought to a *Cicatrix* or to skin over; that all *Ulcers* which are stubborn, or as they are termed, rebellious, come under the Name of *Cacoethic*, a Word frequently met with in chyrurgic Treatises, derived ἐκ κακῶν *Malum*, ὃ καλεῖται *Mor*, vel *Mali Moris*, of an evil Disposition, the *Herpes* ἀπὸ ἑρπεὸς *Serpo*, from whence the *Serpigo*, implying the same fretful and spreading Malady.

But least I should seem to you to act the *Pedant*, by a vain Ostentation or show of Learning, I will at present trace no more of these Names, with some other hard Words interspers'd throughout these Sections, from their Originals, but leave them to be found, as you shall see occasion, at the close: Which every one who is desirous to give a Reason for what he talks, will doubtless enquire after, and for whose sake I shall insert a Table thereof Alphabetically digested.

There are yet two other *Ulcers*, and those of the worst sort, which altho' they may be properly enough ranked under some of them already described, yet is the Original of both derived from the *Mithologists* of old Times, or the *Fables* of the *Poets*; I mean the *Telephian* and *Chyronian*, the first so call'd from *Telephus* a King of *Mysia*, Son to the famous *Hercules*,  
who

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who falling out with the Græcians in their Expedition against Troy, was wounded by Achilles, the Son of Peleus King of Thessaly, and could have no Cure but by the Rust of the same Instrument which gave the Wound.

And hence probably not only the Source of our Weapon Salve, but the like fabulous Accounts of Sympathetic Cures. The other from Chiron the Centaur, Son of Saturn, who like to be surprized in Adultery by his Wife, transformed himself, as the Fable has it, into a Horse, upon which his Paramour conceiving, brought forth a kind of Monster, having the upper part Man, and the rest a Horse: Nowwithstanding which, you must know he was a most excellent Physician and Surgeon too, being Master even to the Father of Physic, as is sometimes stiled the great *Æsculapius*: It was this Monster of a Man they say, that made *Apollo* a Musician, and *Hercules* an Astronomer, but for the Cure of rebellious Sores or Ulcers, when they had tried all others, they were forced it seems to be beholden to *Chiron*, for their Cure: And thus you have the Poets ground for calling stubborn Ulcers by the Name *Chyronian*; but whether this *Telephus* or *Chiron*, were in being when the valiant *Achilles* receiv'd his Wound in the Heel, which Wound prov'd Mortal, I know not. This indeed stands farther upon Record, that our Herb *Centaur*, a most famous Vulnerary, is derived from him as a Centaur, and is by others named *Chironion*, from his Name *Chiron*, as is also our wild *Purslane Telephion*, from *Telephus*, [who was also a Botanist] above mentioned.

But leaving these, which however less instructive, are I think a harmless Amusement, and returning, there is a farther distinction of Ulcers, truly worthy of your Notice, that is some Distemper which may be said to be, if not an Original, at

least a *Foster Parent*, and without respecting which, as was said at the close of our last, concerning *Wounds*, there will be no healing the *Offspring*: Thus the *Scorbutic*, the *Strumous*, and the *Veneréal* *Habits*, will require a different internal *Regimen*, altho' their *Ulcers* probably may be treated with the same local Remedies, concerning which I will no longer detain you, since what I have said, will I think, serve to furnish the most material Differences and Distinctions.

As to the Causes of *Ulcers* in general, we have already observ'd them to be sharp Humours fretting of the Skin, and preying on the Flesh underneath, arising either externally, as by Burns and the like hurts, or internally from the Blood its self, or some *Dyscrasy* in its Juices, particularly the acrid or salt Serum thereof; hence *Abscesses* or *Apostems*, being broke or open'd, from the acrimony of the Humours, often terminate in fretful *Ulcers*: Among the external Causes are likewise *Wounds*, which by reason of the Fluxion attending from the ill Habits abovemention'd, having lost their first shape, and remaining still hard of healing, neither admitting *Symphisis*, nor readily incarnating by *Syffarcosis*, but growing rather deeper, and enlarging their Borders, degenerate into this Disease, and quitting their former Appellation of *Wound*, are called now by that of *Ulcer*.

In respect to these, there are some who are for a definite time set for the *Wound* to commence an *Ulcer*; but considering the nature and differences of *Wounds* themselves, I think this is much better dated from the foresaid change of Figure, whether into one of greater profundity or amplitude in the outer Dimensions, than directly from their Age: Since one after many Days or Weeks may properly enough retain its first Name of *Wound*, whilst



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whilst an other in half the time, by its corrosive or virulent Humour falling down and preying on the Parts, may be call'd by that of *Ulcer*. As for the *Absces*, open'd especially by a *Cautstick*, there may be no absurdity for ought I see, even the first Moment of the *Eschar* casting off, to denominate the raw place an *Ulcer*.

The *Diagnosics* of this Disease are self-evident, when seated upon the outward Parts of the Body, but if internal, we are to gather them from the Complaint and the Matter, as also the way of Excretion: Thus purulent Matter vomited together with the Aliments, a Sense of preceeding Pain and Anguish upon the same Region, indicates the *Stomach* Ulcerated: But if Coughed up, the Patient complaining of Pain and Soreness upon the Chest, straitness and Oppression, inflammatory Disorder antecedent, and a subsequent *Hectic*, the *Ulcer* is in the *Lungs*; If issuing forth the *Pudendum*, the complaint about that Region, in the *Womb*: but if flowing together with the *Urine*, attended with *Dysuria*, *Stranguaria vel Ischuria*, in the *Bladder* or its *Sphincter*; if between the times of making Water, the same Issues through the urinary Passage in Men, without complaint of Pain in the Parts, the Seat of the *Ulcer*, according to some, is in the *prostate Glands*; but by later Discovery, in those of the *Urethra*, called a *Clap* or running of the Reins; if in like manner out of the *Vagina* in Women, it is either the same or a *fluor Albus*: to distinguish which, I have directed you in my *Siphilis*, or *practical Dissertation on the Venereal Disease*. Lastly, if purulent Matter less foetid than that from the *Bladder*, flow together in large quantity with the *Urine*, a gravative or tiresome Pain upon the *Loins*, we justly suspect an *Ulcer* in the *Kidney*. But pretermittting any farther Account of these, as falling more directly un-

Diagnosics of internal Ulcers.

der the care of the Physician, we shall touch upon the prognostic Signs of Ulcers in general, and then hasten to their Cure.

Prognostics of Ulcers in general.

These are taken usually from the places of their Situation, their Complication and Duration: Thus the Ulcers of the Eye, Nose, the inward Part of the Mouth or Throat, outwardly on the glandulous Parts of the Neck, Ulcers on the Breast and lower Belly, also on the Legs, the Joints among the Ligaments, tendinous or nervous Parts, are more troublesome than those upon the Skin or Flesh of some other Parts.

From their Complication and Corrosive malignant Nature, so the Hydropic, Strumous, Scorbatic, Venereal, the Sinuous, much more the Fistulous, the Fungous, Exedent, Putrid, Varicous, Callous, Carious, but above all the Cancerous, are more troublesome, hazardous and dangerous, than when unaccompanied with those Accidents.

From their Age or Continuance, in which respect the Old, or, as they are call'd by some, Annual Ulcers, are generally more stubborn and rebellious in their healing, than the Recent, and which being healed, are not void of Danger, unless all imaginable Care be taken in consulting the Physician, that by the most exact Physical Regimen, the Juices of the Blood may be rectify'd, before the same are closed, least the ancient Sluice shut up, through which the Humours have been so long accustomed to evacuate, the same pent up in the Vessels, kindle a Hectic Flame; or seizing the tender substance of the Lungs, produce a Pulmonary, or Secondary Symptomatic Phthisis, and bring on a Marasmus. In a Word, Ulcers which are the effect of some preceeding Distemper, as we have already just now remark'd, viz. the Dropsy, Scurvy, Kings-Evil, Pox, or the like, have their Prognostics depending very much on the facility or difficulty of curing

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curing such Distempers: The *Hydropic* particularly is most apt to Gangrene and Mortify, the *Scorbutic* and *Serumous* both difficult and tedious, the *Venereal*, if the Patient hath not been too much tamper'd with, and accusom'd to the *Mercurials*, at least was never *Salivated*, more hopeful.

In the Cure of Ulcers in general as well as Wounds, Cure of Ulcers in general. there are many Intentions, as 1. The *Intemperies* attending, whether *hot*, *cold*, *moist* or *dry*, or compounded thereof, must be corrected, together with the *Pain* and *Fluxion* owing thereunto, which in like manner is to be averted. 2. The *particular Symptoms* appertaining to each, and which obstruct the Cure, are diligently to be regarded: Thus in One, the *Callosity* is to be soften'd and rendred more pliable; in a Second, the *Fungus* Corrected, called otherways *Hyperfarcosis*; in a Third, the *Simulosity* dilated, in a Fourth, the *Putrifaction* subdued; in a Fifth, the *Varix* supprest or repel'd, if not eradicated; in a Sixth, the *Caries* exfoliated; and so of the rest: Whilst in all the *Cachochymy* of the Blood is Purged, and its particular *Dyscrasy* amended by *Specifics*, whether *Antihydropic*, *Antiscorbutic*, *Antistrumatic*, *Antivenereal*, or other proper *Alteratives*, as may best conduce to master the Distemper, of which the several *Ulcers* may prove to be the Offspring: Before we to touch on each particular whereof, I must farther acquaint you, that as they may be said to have all their *four particular Times* or Stations in like manner with other Diseases, *viz.* *Beginning* *Augment*, *State* and *Declension*: So have they all, unless you please to except the simple *Cutaneous*, which after Digesting requires only a new Skin, *Four general Indications* for their Cure, I mean *Digestion*, *Mundification* or *Deterision*, *Incarnation* and *Cicatrisation*; of which we have already taken some notice in our last concerning Wounds, where



where these Intentions were also wanting, and for which Cause we may be the shorter here: However, before we enter upon particular *Ulcers*, we shall in a few Words as possible, direct the young Practitioner how he may best answer, I mean with what Medicines, each of these foregoing Indications, and first for his *Digestives*.

*Digestives.* In Order to the *Digesting* of an *Ulcer*, you have that old Medicament of the *Terebinth. cum Ovi vitello*, with or without *Basilicon*, which is yet in use with some, as likewise the said *Basilicon*, to which in regard of the Name, we should pay a mighty respect; and truly tho' we took little notice of it in our former Discourse of *Wounds*, giving then a just precedence to the *Linimentum Arcaei*, yet in *Ulcers* is often call'd for, especially that which of late Years is prepar'd with a full quantity of Wax, and leaving out the Pitch, whence from its Colour, it hath received its additional Epithet of *Flavum*. The *Ol. Hyperic. Lumbric. Lil.* either run down with *Terebinth*, or some of the foresaid *Royal Ointment*, nam'd *Basilicon*, are notable *Digestives* in some Cases: But in the use of such Medicaments, you must regard *Temperaments*, and the condition of the *Ulcer*; I mean the *Intemperies* thereof, the *Sense* of the Part and Site of the same. For Example in dry Habits, with a hot *Intemperies*, the *Ulcer* in a fleshy Part, you may use the *Basilicon* by it self, or melted down in a Spoon with a small proportion of the *Ol. Hyper.* In the *Corpulent*, with a cold or moist *Intemperies*, the Oils may be left out, and the *Basilicon* mix'd with the *Linimentum Arcaei*, or a little of the *Bals. Tereb.* when if the Parts are sensible, these may suffice, but if less so, or where great Putrifaction attends, the *Ol. Tereb.* may be added, or the *Ungt. Ægypt.* likewise the *Præcipit. rub.* [without which *Chirurgery* would be defective] may be sprinkled on the

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the *Ulcer*, when the *Sordes* lyes deep, or mix'd with your *Digestive*, when loose or superficial; at these times also your Fomentations are necessary, prepar'd of the warm dissepient Plants, to assist the heat of the Part, where the same is deficient or languid, and farther promote the *Digestion* of the *Ulcer*; Which if seated upon or near the *Joints*, where the *Ligaments* and *Tendinous* Parts are concern'd, as was observed in our discoursing of *Wounds* of the same Parts, the *Basilicon* how excellent a *Digestive* so ever in fleshy ones, must be here changed for the *Ungt. e Gum Elemni*, with the *Terebinthinate Balsam*.

From *Ulcers*, equally with *Wounds*, there flows naturally first of all under their crude and indigested State, a thin Humour or bloodyish Serum, called of some *Ichor*, of others *Sanies*; [tho' *Blankard* by this last will have meant a thick and bloody *Pus*] which as we have already observ'd, is by the Surgeons commonly call'd *Gleet*, being shed forth the broken Capillaries about the sides and bottom of the *Ulcer*, and continues during the said State: So soon now as this Humour, by the gentle heat of the Part, and the assistance of your Application, is farther concocted and turned into *Pus* or *Matter*, the Notes of which being good and laudable, we have already lay'd down in the foregoing Section, the *Ulcer* is then said to be *Digested*, being the *first Step* to healing, and without which you must in vain expect a Cure; after this we come to *Mundifie* or *Cleanse*, which by the Artist is named *Deterging*.

The Remedies for this Purpose are of several Sorts, Deterfives. among the Simples, are reckon'd the *Rad. Aptj Aristoloch.* The *Ful. Dictamn.* *Chelydonij.* *Hyssop.* *Mar-rubij.* *Centaury*, with the *Farina Fabar.* & *Lupin.* Medicines ready Compounded, are the *Mundif. ex Apio. Ungt. Apostol. fuscum wurtz. ij.* *Aegyptiacum.* But  
whoever

whoever rightly understands the use of the fore-  
said *Præcipitate*, either alone strow'd on or mix'd  
with the *Digestive*, will scarce need other *Detergent*,  
which kind of Medicament must be always propor-  
tion'd in strength to that of the *Habit, Age, Sex,*  
*Situation* and *fordid Condition of the Ulcer*: For as  
the tender and weakly Constitutions require the  
mildest, such as the fore-said *Præcipitate* in small quan-  
tity mix'd with *Basilicon* or *Liniment. Arcaï*, as the  
Part Ulcerated requires: So in strong rustic Bodies,  
you may use that Powder by it self, or in larger  
quantity mix'd up with your Ointment, if not  
with the other more sharp *Deterfives* enumerated  
just before: To the Use of all which, the State of  
the *Ulcer*, and the Sense of the Part, or your Pati-  
ents complaint, will best direct you; and this is the  
*Second Step* to the healing of *Ulcers in general*.

The *Third*, in a regular Progression, is *Incarna-  
tion*, and without this orderly way taken, there  
can be no such thing as obtaining the end you  
aim at; for he that goes about to *Incarn* before he  
*Mundifies*, or *Detergeth* either before he *Digests*, is  
like the Builder who pretends to raise a Super-  
structure without a Foundation, or to lay such  
Foundation at the House Top; and this end is  
obtained by the ingendering good Flesh, to repair  
the Substance lost, being more particularly Natures  
Work, which she is commonly forward enough to  
perform, if all obstacles thereto are remov'd by  
Art directing such Remedies before recited, as  
may not only cleanse away the filth or rubbish that  
lyes in her way, with their kindly deterfive Qua-  
lity, without biting, but also by their moderate  
warmth and Desiccation, conserving the native  
Heat, with the proper Tone of the Part, making  
way for a commodious influx of the Nutritive Juice,  
which by the light astringency of the same, lay'd  
thus



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thus down by the Pores, are converted into new Flesh.

In the Class of Simples of this kind, are number'd Sarcotics, the *Millefol.* *Sigellum Salomonis.* *Equisetum,* *Plantago,* *Centinodium,* *Alchymilla,* *Sanicula,* with many other *Vulneraries*, so termed from their sanative property, and their gentle astringent, by which they are fitted to dry up the superfluous humidity of the Parts. Many of the *Gums*, among which the *Resina communis.* Thus, *Myrrha,* *Sarcocolla,* *Aloes,* *Olibanum.* *Elemni.* *Terebinth,* *Pix.* with others; in the same rank are reckoned also by some the *Farina Hord.* *Foenugn.* *Lupin,* the Powders of which being mix'd up with *Terebinth,* or sometimes with *Mel Rosar,* also with the common *Basilicon* and *Lini-ment,* are made hereby, more or less Desiccating, as the condition of the *Ulcer,* moist or dry, or the Patients Habit shall require, which was observed in the two foregoing Indications. By way of farther distinction in this particular, you will infer your *Sarcotic* is too weak, or not sufficiently drying, if much *Quittour* flow from the *Ulcer,* the Flesh continuing spongy; on the other Hand, if the Edges of the same are over dry, and the Flesh rather waists than shoots up, it is an argument that the same has been too biting and *Stiptic*: But when your *Incarnation* arising, appears fresh, red, and withal firm, the discharge daily lessening, the aspect every way promising, and your Patient easy, it is an argument that your Medicine is well temper'd according to *Sennertus,* and indeed to right Reason.

Out of several forms of *Sarcotics*, which I have at sometimes used my self upon extraordinary Occasions; I shall single out the following, recommended by the best *Writers* in *Surgery*; the first from *Wiseman.*

Rx. Myrr.

*Rx. Myrr. Aloes pulv. ā ʒss. Thuris, ʒj Mastich. Gum Elemni ā ʒij. Tereb. ven. ʒiv. Ol. Hyper. q. s. ut f. unguentum. vel Rx Thuris Mastich. Sarcocol, ā ʒi. Ol. Hyperic. ʒij. Cera alba, q. s. ad Unguenti Consistentiam.*

To these may be farther added, the *Pulv. Aristoloch. Ireos*, or the Species incorporated with *Mel Rosar.* and used as a *Liniment* upon your *Dossils* or *Pledgits*.

The *Yellow Basilicon*, or the *Liniment of Arcaus*, with more or less of the *Præcipitate* has very often with me, answer'd the three intentions of *Digestion*, *Deterfion* and *Incarnation*: The *Basilicon* of Dr. Read for the same End, which is much preferable to the old Composition of the Shops; under that Name is this following.

*Rx. Cera Citrin. & Resina clara ā ʒvi. Pic. Naval. ʒiv. Gum Elemni ʒij. Ol. Oliv. ʒv. Vernic. clara ʒiv. Sevi Ovil. ʒij. Tereb. Ven. ʒijss. pulv. Myrr. ac Oliban. ā ʒi. liquefant. s. a. ut exinde f. Unguentum.*

When you have thus fill'd up the Sore with firm or sound Flesh, you have then gained the *third Step* in the *Cure of Ulcers*; and there remains no more but to dry up the Superficies into a *Cicatrix*; and here I think *Art* may be said to take place of *Nature*, who if not hinder'd at this time, and stop'd in her Work, would overact her Part, and produce a *Sarcoma*; to prevent which, 'tis the Surgeons Office to overlook her, and when he sees it necessary, to oblige her to cease, by sprinkling some more desiccative Powder upon this new rais'd Flesh, or a *Pledgit* arm'd with some proper *Epulotic*, proportion'd still as before, to the condition of

## Sect. VI. Of Ulcers in general.

of the Ulcer more *Moist* or *Dry*, and the strength of *Temperament*.

The Simples for this Use are the *Cort. Granat. flor. Balaust. fol. Ros. rub. Rad. Tormentil. Bistort.* Among *Earths and Minerals*, *Bolus verus, Lapis Calamin. Tutia, Cerus, Lithargirum*, stronger yet are the *Alumen, Vitriolum, Calx viva*, which are sometimes wanted, when the *Flesh* is too *Moist* and *Luxuriant*.

The Compounds for this Intention are the *Ungt. Epulotica, Diapomph. Desc. rubrum de Calce, de Tutia. Album.* and without vanity I can say, beyond them all, my *Ceratum de Lapide Caliminari*, which I have for a general benefit publish'd in my *Treatise de Morbis Cutaneis*, at the close of the Tenth Chapter, concerning *burns of the Skin*. To these are added a Solution of the *Calx* in fair Water, likewise of the *Alum* and *Vitriol* in rustic Bodies, and *Dysepulotic Ulcers*; not forgetting among the generality of them, that excellent *Epulotic*, a simple *Pledgit* of dry *Lint*.

And thus having arriv'd at the *last Step*, and finish'd the Cure of *Ulcers* in general, I intend for your farther Information or Instruction, to revise them separately, at least the more *Material*, and in speaking thereto, shall lay down such farther brief Directions, as may be of Service to you in the Management of each, as they happen to be complicate with their several Accidents; but first a Word or two of the *simple Ulcer*.

An *Ulcer* however Simple or unaccompany'd with *Intemperies*, loss of *Substance*, or other Attendant, does yet require, like the contus'd *Wound*, to be *Digested*; Otherwise a slight rankling or festering as they are called, in an ill habit of Body, has occasion'd many times the most formidable Symptoms, and a slight raze of the *Skin* neglected, has often introduced an annual *Ulcer*, attending the unwary Patient.



Patient, perhaps to his Lifes End: Which should caution every one how he trusts to the *goodness* of his *Flesh*, his *Urine*, *Loaf Sugar*, and that common, but pernicious Application, the *Gold Beaters Skin*, from which particularly I have seen bad Consequences, and rather in these trivial Hurts, to hasten *Digestion* by a *Pledgit* of *Basilicon* or *Linim. Arcai*, after which some gentle *Epulotic* before mention'd, will more securely heal up the breach; but whoever will experiment my foresaid *Cerate*, will seldom find Occasion from first to last, to Use other Remedies in their *Cutaneous* or *Skin* deep Maladies.

### Of Particular Ulcers.

Among the Symptoms attending particular *Ulcers*, we shall begin with *Pain*, as the most common, and creating trouble in the healing till the same is removed: Of which there are sundry Causes, as the *Fluxion of Humours*, the hot and dry *Intemperies* of the Part, the exquisite Sense of the same, the ill position of the Member, the Irregularity of the Patient, and too often the Ignorance of the Surgeon in not rightly managing the Bandage, or proportioning the strength and heat of his Medicines to the diseased Part.

The *Fluxion* is best prevented by bleeding and lenient Purgation, whilst the hot and dry Distemperature, [the most troublesome of the rest] is corrected by some *Anodyne* refrigerating Topics, such are the Decoctions or Juices of the *Fol. Acetos. Endivia. Cichor. Lactuca. Forsulaca. Nymphae. Hyosciami. sedi. solani.* of which Cataplasms may be prepar'd by thickening with the *Mica Panis. Album. Ovi.* adding the Unguent. *Populi. Nutritum Pomat. vel Alb. Camph.* Embrications also with the same,

OR

## SECT. VI. Of Ulcers with Pain and Fluxion. 17

or the *Olea Rosar. Viol. Sambuc. Hyosciami. Papav. alb. Compresses*, also dipt in *Oxycrate cum Alb.* Over then exprest and roll'd moderately on above the Part as *Intercipients*: But these must be renew'd often; *Defensatives* of *Diapalma, Bolus verus. Ol. Ros. & Acetum* may be apply'd after like Manner, to answer the same Intention.

In respect to the Sense of the Part hurt, as supposing those which are *Nervous* and *Tendinous*, let the same be carefully defended from the cold Air, as we observ'd in Wounds where these Parts lay bare, covering them with a warm Stuph exprest from a proper *Fotus*, whilst the Applications are compos'd of such Medicaments as we directed in our Account of Wounds of the said sensible nervous Parts. As far also as the *Accident* is owing to the disorderly position of the ulcerated Limb, let the same be carefully placed so as to lye upon the level with the Trunk of the Body, by no means depending or perpendicular, which will encourage the *Fluxion*, and stir up more Pain: Thus admit the *Ulcer* affect the Leg, it is to be kept upon a Chair, or Stool, with a Pillow under, or, which may be sometimes necessary, upon, if not within the Bed, or lying on a Couch. The Arm is to be pin'd up in a Napkin, as was directed for the Wounds thereof: And if the Patient be irregular in any of the *Non-naturals*, no wonder this Symptom should intervene with the Fluxion of Humours. Wherefore that I may not multiply Words in this particular, let the *Regimen* be taken from what we have already laid down for Persons wounded, whether as to the *Air, Exercise, Sleep, Meat and Drink, natural Evacuations*, and *Passions of the Mind*, which have all their Influence one way or other upon Ulcerated as well as wounded Patients, always observing in the dry Habits with a hot *Intemperies*, that his Diet be rather

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ther humecting or moistening, and refrigerating or cooling.

It remains that we speak a Word or two of the *Surgeon* and his way of rolling, with his applications to the *Ulcer*. Let the former, prepar'd of soft Cloth, as we directed for the Wound, be so turned and managed as to lye easy on the grieved Place, neither so strait as to encrease the Pain, nor yet so loose as to hazard the Dressings coming of, but such as may securely retain them, beginning moderately strait from below upwards, and slackning rather upon the Sore, if so tender as not to suffer the like Compression thereon, again straitning as you began when past the same, by which to repel gently or drive back the Humours.

The last occasion of *Pain* we observed, was that which might be owing to the too great heat and sharpness of the *Medicine*, discover'd by the Patients long continued complaint after, of burning, smart and great throbbing therein, by the angry aspect of the *Ulcer* at the next opening, with indigestion, Gleet or ill condition'd Matter flowing in the room of a well concocted Pus.

When the Case is thus, you are to consider if you have not too early began to *Deterge* or *Cicatrise*, before you are well *Digestive*, for that is the ready way to procure this disturbance in the Part, and complaints from your Patient; or if you find that either your *Digestive* or *Mundificative* be too hot, sharp or Pungent, let the same be changed for one more mild and gentle, leaving of what ever is like to inflame or aggravate the Malady, and dressing up with Lenients, still observing, as we have hinted before, that you have due regard to the Age and Sex, as well as Temper and way of Living.

We now shall observe the *Intemperies* cold and moist, and which accompanies other particular *Ulcers*, which are most commonly met with in the *Corpulent* and



and *Phlegmatic* Constitutions, or in those disposed to *Hydropic* Distempers, attended with less Pain, as of a duller Sense, with a wan or pale Complexion, sometimes pitting round about, and abounding with crude Serosity, instead of a rightly temper'd Matter; which must be treated in a quite different Method from the former, not only applying some Decoction of the hot Plants, as the *Herba Absinth. Centaur. Hyperic. flor. Chamomel, fol. Laur. Rorismar.* or the like, with an *Elixivium* or Wood Ashes boiled in the same, as a Fomentation used with hot Flannels express'd, but also stronger Remedies to the Ulcer it self, as the *Balsam* and sometimes the *Ol. Teberinth.* with the *Digestive*, the *Precipit. rub.* also not only here, but especially with the *Deterfives*, the *Sarcotics* and *Epulotics* must likewise at these Times be of the stronger sort, whilst contrary to the former, the Diet is to consist of what is exiccaring and attenuating, such as we have formerly directed in the *Oedema* and *Anasarca*: And lastly, the bandage must be carried with a stricter Hand, whereby to repress the Influx, and strengthen the relaxed Fibres.

We need not I think detain you, by reciting the *hot and moist*, or *cold and dry* Distemperatures, talk'd of by some, which are provided for by that general Maxim, *Contraria Contrariis*: So that having dispatch'd the *Pain*, *Fluxion*, and *Intemperies*, we shall come to those other Accidents with which they are complicate, and distinguish'd more remarkably in their Appellations: And first among these, of the *putrid Ulcer*, after I have given you one Example of an Affect of this Kind, with a *hot and dry Intemperies*, and excessive Pain attending.

A Gentlewoman, middle Aged, of a thin Scorbutic Habit, often subject to an *Erysipelas* upon one or other Parts of her Body, was by way of preven-

tion, instead of correcting the *bilious*, or hot and acrid Salts in her Blood, advised to have a *Fontanel* in her Arm, which by some pretender to Surgery, was made too much inwards on the Body of the *Biceps*, rather than in the Interstice, between that and the *Deltoides* as it ought. Whence immediately ensued great *Fluxion* with *Inflammation*, the *Ulcer* being so excessive painful, that after few Days, they were glad to throw out the *Pea*, and endeavour to heal it up again: But proceeding irregularly in attempting to *Cicatrise*, before *Digestion*, and falling still into ill Hands, the Arm swell'd up, and the *Ulcer* continuing only Gleetings, with extream Pain, the poor Woman could get no rest either Night or Day.

When she had passed thus through several Hands, for many Weeks, and apprehending Danger from her Arm, which some told her must be cut off, she came to me, who viewing the Limb, perceived a *Sordes* on the bottom of a large *Ulcer*, which from the compass of the Issue at first made, was now spread to the Circumference of a Crown Piece, with several other *Serpiginous* Ulcerations round about; in some of which the Flesh appear'd as it were Worm-eaten, with the Edges hard and painful, to that degree, that she could not suffer even the finest or softest Rag, much less an armed Probe, to be lay'd on, in order to cleanse the same.

I told her plainly I could do her no Service, without internal Medicine, that might correct the ill State of her Blood, of which I found she had no Notion, unless by the way of *Purging*, which she said she had taken twenty Times, and was always worse after them; and truly there was less likelihood it should be otherwise, since by what I could gather, they were generally such, as by their heat

and

and acrimony, excited fresh Disturbance in the Humours of her Blood, instead of carrying off or lessening the Matter therein offending, supplying a ferment rather to the Disease.

I began her Cure by Bleeding, to derive some part thereof an other way, and thereby to empty the same; also to fan, as it were the remaining Mass, and cool her whole habit of Body: Furthermore, once in 4 or 5 Days, I prescribed *Calomel*. in small quantity, as to *℥ss.* or *gr. xij.* purging of next Morning with a gentle Infusion of the *Rheubarb*, *Senā. cum sale Tart.* as you will find it prescribed in the *Erysipelas*; the Days between [the Season favouring] she drank the *Antiscorbutic Juices* of the milder sort, such as were express'd from the *Fol. Taraxac. Fumār. Cichor. Becabung.* which did much temper and allay the bilious Effervescence and heat of the Blood: Yet still I perceiv'd I had not gain'd the Ground that might have been expected for the Time, nor could I for three Weeks, contrive any Remedy she could bear to lye on the usual time of Dressing, without very great uneasiness, and as great complaining: The *Precipitate*, either by it self lightly strow'd, or mix'd with the *Digestive*, which usually avails beyond all others, doing nothing here, the Ulcer lying still crude, with its *Sordes* sticking fast, notwithstanding all endeavours: So that suspecting some secret taint or latent Venom of another sort, I had thoughts of raising a gentle *Ptyalism* to subdue the same, before which I earnestly prest for a Consultation, but the same would not be granted, and indeed the very Name of *Spitting* frighten'd her away from me for a few Days; after which she return'd of her own accord, telling me she was tir'd of her Life, and would submit to any thing that might but procure a little Ease; upon which I immediately order'd her *gr. viij.* of



*Turpeth Min.* which worked a little roughly upwards as I intended, for 6 or 7 times: In the Evening of the same Day she took a *Paregorick*, and lay all Night in her Bed, which she had not done for a great many before: At the same time I again strow'd the *Ulcer* with *Precipitate*, persuading her to let the same lye on for two Days, over which I laid my *Digestive* thin spread with *Basilicon*, and a third of *Liniment*: The other *Ulcers* were dress'd with *Ungt. Tutia*. adding a little *Merc. dulcis*, with a view of checking their *Erosion*; and over all my *Ceratum*.

At the time appointed, I took of my Pledgit from the large *Ulcer*, and as I observ'd before the *Gleet* to be much lessen'd, I now found the *Sordes* beginning to seperate, some of which came off with the Digestion upon the Pledgit, so that dressing again as before, and continuing it for the same time [a Hint I had taken long before from Mr. *Wiseman*] at the next opening, the remaining came away in a thick *Slough*, leaving the *Ulcer* well *mundify'd* or cleansed, yet withal still so very painful, that we were forced to correct the very Air, at the times of Dressing, with a Pan of live Coals, it being several Hours before she could sit, stand or lye still, afterwards.

The fourth Day from the first Dose, she repeated the *Turpeth*. which at the first, strain'd her much in Vomiting, but with that Relief to her Arm, as made her sufficient amends: For the *Ulcer* kept clean, and grew less tender, the Bottom beginning to incarn upon the Membrane, lying bare or in view, the Lips or Edges softer, and the *Serpigines* better condition'd, skinning over in some places from this Dressing, If we had not continued getting ground I intended to have proceeded at least to have made her Chaps sore with the *Turpeth. Min.* which I gave her at like distance from the second Dose, a  
third

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third Time, keeping her all this while to a *Sarsa* Diet Drink; by which the Disease was so Conquer'd, that having Incarned, we were in hopes soon after to Cicatrife the same, the little ones which appear'd Worm-eaten, being in a manner heal'd up smooth: But still I perceived the large *Ulcer* so truly *dysepulotic*, or difficult to skin over firmly, without cracking, that I much repented I had not taken the opportunity of pursuing her Spitting when her Gums began to swell; in the place whereof I kept her to an *Alterative* Electuary, with the *Æthiops Mineral*, prescrib'd as follows, with a Draught of her Diet Drink upon the same.

Rx. Conf. fr. Cynosb. ℥j. *æthiop. Min. s. i.* ℥ss. Chel. Cauc. simpl. ℔. ℥ij. Syr. Dialth. q. s. m. f. Elect. de quo sumat Morsulum ad Magnitud. N. M. Maj. Mane & vesperi superbibendo ℥iv. Jusus sequis. cujus bibat per se eandem dosin 4<sup>a</sup> pom.

Rx. Rad. sarsaparil Ras. Lign. Saffas. rad. liquirit. sem. Coriande. ā ℥ss. rad. Lapath. acut. incis. ℥ij. infunde frigide per triduum in aq. Calcis ℔iv. ad usum supra ordinatum.

Till at length perceiving she grew *Hectical*, upon finishing her Cure, I put her upon a Milk Diet, with the *Decoct sarsap.* Edulcorans, as directed by Fuller in his *Pharm. Extemp.* drank also with Milk, which recover'd her to Admiration.

A most toilsome vexatious Work, sufficient I think to caution young Men, how they cut Issues, in some *thin, hot* and *dry Habits*, without advise: For tho' these Accidents took their rise, and the *Ulcer* grew so very painful first of all, by the unartful Section of the Skin, upon the Body of the Muscle: Yet had it been made [as I have known others

which have prov'd exceeding painful, and troublesome to get whole again] upon a proper Place in the same Subject, it is questionable if it could have been continued, as may be infer'd from the other Corrosive, Malign, and Cancrous like Exulcerations round about : For subduing which, all the mildest *Digestives* and *Deterges* with lenients, as the *Basilicon* with the *Præcip.* the *Unguent. Tutia*, *Diapomph*; even my *Cerate* it self, the best contriv'd Remedy, one of them in the Universe, and which has rarely fail'd me, prov'd ineffectual, till a powerful shock was given, or a strong Revulsion made by the *Emetic*, or *Mercurial Vomit*. A light scratch upon her Hand, [tis strange that thence she should admit a cut upon her Arm] having soyl'd, she told me, fifteen Years before, a noted Practitioner, since dead. So exquisitely tender was this *Ulcer*, that for two Months time, she would not suffer even the gentlest turn of a Roller, her Shift and Gown Sleeve being born up by a Contrivance, Hoop Fashion, of her own Invention. She was naturally a peevish Woman, always upon the Fret, and indeed I found her the greatest tryal to my Patience I ever met with : But having I think, unadvisedly engag'd, I am sure inadvertently, and after long Fatigue, as I hoped, got the better of so stubborn a Disease, I was willing if possible to compleat the Undertaking.

### Of a Putrid Ulcer.

Of putrid  
Ulcers,  
with a cold  
Intempe-  
ries.

We have already taken Notice, that during *Indigestion*, as well from *Wounds* as *Ulcers*, there flows a serous or watery Humour, by Practitioners called *Ichor*, but in this particular one, by reason of the Putrifaction attending, there is farther engender'd, as well at the Sides, as the Bottom, a more thick and vici-



vicid one, named *Sordes*; Wherein through the ill temper of the Blood, and the degeneracy of the Nutritive Juice, or by reason of some cold and greasy Application, the same still disposing thereunto, the Flesh is as it were tainted or corrupted, and turn'd into a sort of *Putrilage*, or *cadaverous Rottemness*, which appears by its insensibility, its pale and sometimes livid Complection, with a sort of Pappines, instead of the former Callosity about the Edges, and rotten *Sloughs* at the bottom; which Description may serve for the Signs *Diagnostic*.

And as for the *Prognostic*, we cannot say that these *Ulcers* are ever absolutely free from Danger, by reason of the infirm Heat round about, and sometimes its Extinction that renders them, tho' less painful, yet more liable to *Gangrene* and *Mortification*, which in *Corpulent Bodies*, and especially *Hydropical*, they are exceeding Prone to, unless great Diligence is used to prevent them. In the Cure therefore of this *Ulcer*, you are to prescribe first of all, an exact *Regimen* of Diet more particularly, without which and your other Internals to strengthen the native Heat of the Parts, and invigorate the same, your *Topics* will but seldom answer.

His Food in general must be prepar'd of Meats easily Digested, rather Roast than Boil'd, the like drying and attenuating Aliments being here requir'd, as were directed also for the *Oedema* and *Anasarca*; it being such Habits usually, or the like abounding with *Cacochymy*, or ill Humours in their Blood, that are most liable to those *putrid Ulcers*. Also where the Heat is weak, by an over Corpulency, or much Fat, contracted by Luxury, Sloth or Idleness, too much indulging Sleep, and using no sort of Exercise. Or where such Heat is weakned and overcome by the drinking of spirituous Liquors. Lastly, when the nutritious Juices are sour'd, or other-

otherwise vitiated, tainted or corrupted by some Chronic Sickness, as the Gout, Scurvy, Pox, Dropsy, &c. without mending which habits of Body, by subduing the Cachexy with proper Specific Alteratives, it will be difficult, as I observ'd but now, to gain upon these Ulcers, either by laying a good Foundation for their healing, or inducing a lasting Cicatrix thereupon, after they are incarned.

Whilst then you are correcting the distemper'd Blood and its Dyscrasy, either by purging or altering as the same shall indicate, let the Ulcer according to the Degree of its Putrifaction or Sensation, be dress'd up with the milder or stronger Digestive or Deterfive Remedy. If but beginning to grow Putrid, having lightly strow'd your *Precip. rub.* upon the Sloughs, or rotten Flesh at the Bottom, and round the Sides, you may lay on a thick Pledgit, or according to the Depth, soft Dossils of Lint dipt in the warm Liniment of *Arcaus*, melted down with about a third part of the *Balsam. Tereb.* which is much preferable at these times to the *Basilicon*, which by it self is too unctuous for these slabby and rotten Ulcers; or mixing equal parts of the said Liniment with *Basilicon*, in which  $\text{ʒij.}$  of the *Precip. rub.* have been incorporated with  $\text{ʒj.}$  of both so mix'd: herewith your Pledgits or Dossils being first arm'd, and lightly moisten'd in some of the warm Balsam aforesaid, may be lay'd upon the Ulcer, with a Plaister and Compress thereon, and a Bandage, tho' not so straight as to intercept the passage of the Blood, yet so as to bear gently upon all parts of the Ulcer, and keep of the Fluction.

The *Ungt. Apostolorum* is used by some at these times, but I think the *Precipitate* with your common Digestive as here directed, exceeds all others; which when the Sloughs are thick and deep, adhering close, is to be strow'd on by it self, your mix'd Ointment

Ointment upon your Dossils over it, and thus suffer'd to lye for 48 Hours, or 2 Days and Nights, you will find it more effectual in digesting of the *Sordes*, than if daily shifted. At the times of dressing these moist or *putrid Ulcers*, you must take care you are never wanting of a warm Discutient Fomentation, like what we have at the beginning directed for the *Phlegmon*, tending to a *Sphacelus*; With which the *Ulcer* must be diligently stuphed with hot Flannel for half an Hour. And if by such means the *Sordes* loosens, and the Putrifaction is check'd, you are to proceed till your *Ulcer* is well *Mundify'd*, and that the Flesh underneath regains its natural Colour: When leaving off your *Precip.* thus strow'd by its self, and mixing it still more sparingly with your *Sarcotick Unguent*, you may *Incarn*, as in other *Ulcers* with a moist *Intemperies*, we have already directed. But if notwithstanding your former Applications, the *putrid Illuvies* still encreaseth, and the *Sordes* thickens in the *Ulcer*, you must add to your *Digestive*, the *Ol. Terebinth* it self, or the Tincture of *Myrrh* and *Aloes*, more or less, as the sense of the Part will allow, and the degree of Rottenness shall require; which proving still insufficient to stop the Progress, it will behoove you to Scarify, or cut into the Flesh all round, so deep as to fetch Blood, carefully avoiding the Tendons and Blood Vessels, and to fill up your Scarifications, together with the rest of the *Ulcer*, with Dossils dip'd in the scalding hot Mixture aforesaid: Then laying on a *Pledgit* suited to the compass of the *Ulcer*, arm'd with the *Ungt. Aegyptiacum*, which is an admirable good Medicine in these Cases, and proceeding, as in the *Phlegmon* tending to a *Gangrene*, we have advised. These failing, and the Part Mortifying, *Amputation* as in those desperate Cases, is the last Remedy, if the  
same



same is practicable. But if by the more powerful, whether *Digestive* or *Deterfive*, you may have put a stop to the Progress, the rotten *Sloughs* now separating, and the *Flesh* of its natural Colour, beginning to appear undearneath; your *Precipitate* either by it self, or mix'd with the *Basilicon* and *Liment*, as the same shall require to be *Mundify'd* or *Deterged*, spread upon the *Dossils* or *Pledgits*, and dip'd in the warm *Balsam. Terebinth.* may probably compass your design; at least you must observe this for a standing Rule, that as the *Ulcer* becomes cleaner and more sensible, you must gradually lay aside your stronger *Detergents*, and proportion their strength to the Condition of the same, I mean of the *Ulcer*; for by pursuing the stronger Medicines, when the Sore is clean, and the *putrid* *Flesh* removed, you will only inflame and aggravate the Disease.

The *Ulcer* being *Deterged*, there is now room for your *Sarcoticks*, which are here also required to be of the dryer sort, as the *Pulv. Myrr. Aloes. Sarcocol.* mix'd along with your milder *Digestive*, or with more or less of the *Precipitate*, as you shall find occasion.

Your *Incarnation* also being thus compleated, there remains now only a *Cicatrix* to be thereon induced, which is to be brought about by *Epulotics* of the more desiccative kind, as we have before recommended for *Ulcers* abounding with great Humidity.

As our last History by way of Example was taken from an *Ulcer*, the consequence of an *Issue* made unadvisedly, and injudiciously in a hot and dry Habit, so the following will shew you the ill Effects of an other, in a *Phlegmatic* or cold and moist one; both which should caution you how you attempt the cutting of an *Issue* in some habits of Body, even  
in

in the Arm, without good Advice and Deliberation, but more especially in the *Legs* of Women, who are very Corpulent, and inclining to be *Hydropical*.

One of a full Habit, *Cold* and *Phlegmatic*, not HIST. 70, only abounding with *pituitous* Humours in general, but *Oedematous* about her Feet, and Ankles at all times, and towards Evening especially, subject to swell'd *Legs*, taking rise from her frequent sipping of distill'd Waters [that abominable Custom now more than ever reigning among us] by which the native Heat being weaken'd, and the *Fibers* rendred overlax, through the redundancy of serous Humours; about the time of her *Menstrual* Purgation leaving her, which for some Years [as is customary with some *Cachectic*, bloated Habits, had been irregular] complaining more than ordinarily of pains in her Limbs, was imprudently perswaded by her Midwife, to have an *Issue* in her *Leg*; which for the lucre of a Shilling, was unadvisedly perform'd: For tho' made suitably enough in regard of its Situation, yet the habit of her Body being so wretchedly vitiated, the forcing of a Pea into the new made *Wound*, and binding down the same, immediately brought on such a Flux of a sharp *Ichor*, and so enlarged the intended boundaries thereof, that instead of *One*, it was capable of admitting *half a Dozen* large Peas, the Flesh about instantly Corrupting and growing still more Rotten: Upon which, finding there was no likelihood of reducing it to the purpose intended, a Surgeon was call'd in, if possible to repair the Breach, who prudently threw out the Peas, and endeavour'd to *Digest* the *Ulcer*, [by the way, I think this might be so call'd a Day or two after it had been a *Wound*] yet in vain; so that after about three Weeks, I was consulted; and discover'd, I can't so properly say a  
Mor-

*Mortification*, as a rotten *putrid Ulcer*, the compass of a Palm, with a *Gangrenous* Disposition round about, from whose several *Vesications*, together with the *Gleet* from the *Ulcer* it self, the Bolster and Bandage came of wet, as if soak'd in a Bloody Water all Night.

Taking of the Dressings, to prevent the impending Danger, I immediately cut through the rotten Flesh, more than an Inch deep all round, in several places, till the Blood appear'd. Had not the Limb been naturally very large, and now much encreased by the Tumefaction, I should have been cautious of going so deep with my Knife upon a part where the *Crural Artery* makes its descent; but having done this, I order'd a strong *Lixivate* Fomentation the Surgeon had got ready, to be made boyling hot, to a Quart of which I poured four Ounces of the camphorated Spirits, setting them at Work to express the *Stuphs* and apply all round the Limb, repeating them as they grew cold for half an Hour: In the meantime a Panniken being brought, I directed an Ounce of *Liniment Arcaei*. to be melted down with two Drams of the *Ol. Terebinth*, and as much of the *Tinct. Myrrha*, made scalding hot; in which dipping an armed Probe, I soundly bathed all parts of the *Ulcer*, with a large one or two spread over with the *Ægyptiac*. on the outside, and a *Cataplasm* of *Theriac. Lond.* on Cloth, apply'd as hot as she could suffer it, all round the Gartering Place below the Knee, of a Hands breadth, covering the *Vesications*, and rolling on the same, I order'd her to keep in Bed; and that she should take a Morsel of the *Conf. Mithridat.* with a Glass of generous Wine, instead of her Dram I perceived she much cover'd, to warm her Blood, and keep of the *lan-*  
*guor* of her Spirits.

The



The next Day I found the *Gleet* much lessen'd, and lifting out the *Dossils* with the *Forceps*, the Edges of the *Ulcer* a little inflam'd, as if tending to Digest, at least the Putrification at a stand: when taking up the rotten Flesh with the same Instrument, I clip'd of large pieces thereof, lying loose at the Bottom, and round the Sides, for the better Operation of my Medicine underneath: I then again caus'd the *Ulcer* to be Fomented as before, and dress'd up likewise after the same manner, of which I found her much more sensible than she was then.

On the third Day, the Edges of the *Ulcer* gave us still much greater Encouragement, appearing with Matter, and the sharp *Ichor* less in quantity, the Tumour gently subsiding, and by turning the putrid *Sloughs* about, which were more loosen'd, with my Probe, I could see in some places, the Flesh to appear ruddy underneath: I now clip'd away more of them, afterwards Fomented, and by reason of her complaining of the smart from her Dressings, I soften'd the same, by adding a little more of the *Liniment*. but continued to strow on the *Precipitate*, and dress'd up otherwise as before.

The Day following, I found her much heartier, with less *Stupor* on the *Leg*, and a stronger Pulse: She continued her *Mithridate* with a sup or two of mull'd Wine, under the Effect of which, warming her Blood, she felt her self much comforted, by a gentle *Diaphoresis* thereby promoted as she lay in Bed. Upon opening the *Ulcer*, the *Gleet* was still further diminish'd, and better *Digestion*; the *Sloughs* now separating all round, as well on the Edges, as at the Bottom, several of which came off with the Dressings; the Flesh altho' flabby lying in sight: Upon which, after I had Fomented, I strow'd the same thick with *Precipitate*, laying soft *Dossils* dip'd  
in

in the melted Mixture, tho' not so hot as before, thereon; and instead of the *Theriaca*, which there was now less occasion for, a large pad of Tow, arm'd with *Liniment* on the Outside, covering the Parts which had been vesicated, as well as the whole *Ulcer* therewith, making up with a gentle Compress and suitable Bandage, somewhat straighter than at first, intending this Dressing should lye on two Days, in expectation of the better *Deterfion* from the *Precipitate*, which in shorter time in some of these Cases does not so well answer.

Accordingly at the time appointed I met the Surgeon, and we took of the Dressings, when the whole remaining Putrifaction came of together therewith in a large thick *Slough*, leaving the *Ulcer Mundify'd*; however, the Flesh not yet so firm, but that more of the Powder was necessary to be strow'd thereon, with the other Dressings, as at the last opening; which being soon after corrected, and wanting only *Incarning*, I took my leave, the Surgeon finishing what remained with the *Liniment*. and *Precipitate*, till the loss of Substance was repair'd, when he cicatrized with dry Lint, and a slight touch of the *Vitriol Stone*.

For the farther dispatch of her Cure, and mending her habit of Body, at my last Visit, I recommended a drying Diet of the *Decoct. Guajac.* dry Bread or Manchet, with a few Reasons for her Breakfast and Supper, with her Meat down roasted, prepar'd of Flesh easily digested for her Dinner, with a Glass of Wine; forbidding at the peril of her Life, any more of her strong Waters: I farther order'd her as she grew well, a full Dose of the *Tinctura Sacra*, twice a Week, for a Month; by which she recover'd a better State than she had enjoy'd for twelve Months past, till falling into an immoderate Flux of her *Menses*,  
her

her Legs began to swell again; upon which she consulted me, who finding her thus flooding, and in great Danger, the same having continued for some Weeks past. I immediately order'd for Revulsion sake, at least by deriving a contrary way, that 4 or 5 Ounces of Blood should be presently taken from her Arm, after which the following *Electuary* and *Tincture*, by which the Flux was presently moderated, and quickly after suppress'd.

*Rx. Pulv. Cort. Peru. opt. ℥i. Ter. Japon. Croci Mart. rest. ā ʒij. Syr. de Meconio q. s. m. f. Elect. de quo capiat quant. N. Mosc. vja. quaque hora durante Sanguinis profluvio. Et sistenti fluxu, Continuetur Ejus usus Mane tantum ac Vesperis per 7<sup>m</sup>. post singulas Doses superbibendo Coch. v. val vj. Tinctura Sequis.*

*Rx. Fol. Rosar. rub. in umbra optime Siccata. ʒss. Affunde aq. F. fervescat ʒxij. Vini rubri austeri iidem calefacti ʒiv. Spir. Vitriol. gut. xij. stent simul ad plenam Tincturae extractionem. cui perfecte depurata ad de Sacchar. cant. alb. ʒss. m.*

In regard to her swell'd Legs, I would have recommended the strait Stockings, but by reason of an *Asthma* that attended, I thought it by no means safe to suppress the Humours in these Parts, for fear of returning them upon her Breast, which was likely to be of worse Consequence; so that directing only a drying Diet, I chose rather to let them take their natural tendency to these depending Parts, than that the Lungs should be thereby farther obstructed: Neither durst I repeat the *Tinctura sacra*, or other stimulating *Cathartic* for evacuating the *Serous Illuvies*, nor yet the Bitters for corroborating and mending the *Cachectic* Condition of her Blood, for fear of exciting the *uterine Hemorrhage* afresh; so that I directed only an Infusion of



the *Rad. Rhei.* to be taken once in 3 or 4 Days, as her strength would permit, with a Morfel of the following Electuary twice a Day, on the Days intervening, drinking her *Guajac.* Decoction upon the same; by which and the prosecution of her drying Diet, she again got the better of her Disease, and remains yet free from the same.

*Rx. Conf. rosar. rub. Absinth. rom. ā ʒi. Coral. rub. pp. Croci Mart. rest. ā ʒij Syr. Capil. ven. q. s. M. f. Elect.*

*Rx. Cort. Lign. Guajac. scobis Ejusdem. ā ʒss. Rasur. Sassafr. rad. liquir. raspat. ā ʒij.*

*Infunde prius supra Cineres calidos per xij. horas in aq. F. q. s. dein Coqr. ad ʒbji. sub finem addendo sem. Coriandr. ʒij. passul. Maj. exacinat. nō. X, & Coletur pro Aposemate ad usum ut supra.*

### Of the Corrosive Ulcer.

Of corrosive Ulcers.

The next we shall observe, is the *Corrosive* or eating Ulcer, of which there are diverse sorts, of as many Appellations or Denominations, according to the differing degrees of Virulency in the Humour, and the different parts they prey upon: Thus where the Skin only is affected, it is term'd *Serpigo*, from *Serpo* to creep along; but when the Flesh underneath is also concern'd, it is then named *Herpes exedens*, of which we have given an Account in our Treatise *De Morbis Cutaneis*. Where the Corrosion is still deeper, it is called *Phagadena*, *Noma*, & *Ulcus Depascens*, being Terms borrow'd from its eating or devouring Faculty, as we have before observed. And these are they which in general may be named *Cacoethic*, as then we told you with the reason why so Denominated, *i. e.* from their evil and perverse Disposition.

Dr. Read

Dr Read distinguisheth the principal of these, viz. *Noma* and *Phagadema*, thus, viz. the first having *Putrifaction* adjoyn'd, but no *Tumour*; the latter *Tumour* without *Putrifaction*. Mr. *Wiseman* has likewise taken notice of this Distinction, but having already described the *Putrid Ulcer*, from what follows in that of the *Ulcus Corrosum*, proper hints may be gathered by the Surgeon, how to treat the former, I mean the *Putrid*, when at any time accompany'd with great *Erosion*.

In the Cure now of this *Corrosive* and eating *Ulcer*, a very great regard, if not the chief, is to be had to the nature of the Humour and degree of its Malignity, as whether the *Bile* simply offends, or that the same by a farther degeneracy into a sort of *Æs virid.* or into what the Antients call'd *Atra Bilis*, has contracted this Predatory, and as it were *Arsenical* property: As again it may be necessary to reflect, whether some Malignity, or Poyson from without, being got into the Blood, is not thence critically thrown out to the surface of the Body; as the *Carbuncle* in the *Pest*, and the spreading eating *Ulcer* from the *Pox*. Lastly, whether or no this particular *Dyscrasy* in the Juices, supplying Matter to the Part ulcerated, arise not from some advanced *chronical* Distemper, as the *Scurvy*, whether *Acido* or *Sulphureo-saline*, the *Lapra*, or as before, the *Lues Venerea*: Without regarding which you will in all probability miss your aim, altho' your local Applications are never so well adapted.

First then if the *Bilious* Humour abounds or grows outrageous, you must purge your Patient between whiles with the *Cholagogue* Medicine directed for the *Erysipelas*, and when farther degenerating, those prescribed for the *Cancer*; injoyning the like *Regimen*, as to the *Nomat*. Forbidding whatever

may farther heat or inflame, and ordering all such, whether Food or Alterative Medicine, as may attemper or soften the *bilious* and acrid Salts offending, and affording *Pabulum* or Fuel to the Disease.

*Hippocrates* enjoyn'd his Patients Bread and Water at these times, but I fear some of ours would think themselves undone, if they had not Flesh and Wine allow'd them.

Whilst this abstinence is pursued, the Artist must endeavour to check the spreading of the *Ulcer*, by some suitable Application, mixing always with his *Digestive* the *Precipit. rub.* or strowing the same upon the sides or bottom of the *Ulcer*, which is I think beyond most others serviceable, not only to correct the *Purification*, but to stop the *Erosion* or spreading thereof: If the *Ulcer* submits not hereunto, rather still encreasing, you must not only repeat your Purgation, but give *Calomelanos* overnight between whiles, purging it off next Morning with your former *Cathartic* Medicine; and for correcting the virulency of the Humour, you may prescribe some proper *Alterative*, as the *Æthiop.* and *Bezoard. Min.* likewise the *Antim. Diaph.* or the *Cerule* thereof, which if kept to constantly according to some celebrated Authors, is able to subdue the most inveterate *Ulcers*, and dispose them for healing. But indeed as to this, I must own that I have given formerly large quantities of these Preparations, without any manner of advantage from their use; whether or no the Disappointment might not partly arise from the vile practise of the *Chymists* in adulterating the Medicine, I cannot say.

With these are prescribed a Decoction of the Woods in the nature of a Diet, particularly, the *Sarsaparil. China Sassaf. Samal. cur Ras. C. C. & Eboris*, and in gross *Phlegmatic* Habits, the *Decoct. Lign.*



*Lign. Guajac.* when if altogether prove ineffectual, you must vomit your Patient two or three times, at as many Days distance, with the *Turpeth. Minerale*, by which a more powerful Revulsion will be made than by all other Remedies whatsoever; and the Ulcer which before perhaps increased under the strongest *Digestive* or *Mundificative* Application, shall after give way to one that is more mild and gentle.

There are diverse Applications recommended to us by Authors, and in use among Practitioners, to overcome the *Corrosive* nature of these rebellious Ulcers, and put a stop to their depredation: Those I have used are the *Lac Sublimati Corrosivi*, and the *Aqua Phagadenica*; the former a solution of the *Corrosive Sublimate* in fair Water, or other simple distill'd Water; the latter in *aq. Calcis* ℞i. 3ss. or 3i. more or less to a pint of the Waters, as the Age, Sex and Temper; with the condition of the Ulcer shall direct.

For this use also there are certain Powders form'd into *Troches*, and from their *Founders*, borrowing the Names they are known by, as the *Troch. Andronii*, *Polyida*, *Musa*, also the *pulv. sine pari Joannis Ardani*, whose Descriptions you will meet with in Dr. Read and other Writers of *Chirurgery*. The Basis of which are some *Caustic* and *Catheretic* Powders, as the *Vitriolum*, *Alumen. as viridis* and *Arsenicum*; instead of which the *Precipitat. ruber.* or the *Turpethum Min. illotum*, mix'd up with some *Deterfive* Ointment, as the *Apostol.* or *Ægyptiac.* or this latter by it self, may be I think with more safety prescribed, and made use of with as good advantage: And where the Edges fret or crack, they may be sometimes touched with the *Ol. Vitriol. Sulphur. Tart. per Deliq. vel Butirum Antimonij*, when the *Erosion* is by those means conquer'd and brought under, the following *Ægyptiacum* of our Authors.

will be found useful in forwarding the Cure, for which cause I have transcrib'd it from his Lectures.

R<sub>x</sub>. Fol. Card. b. Centaur. Min. Scordii. ā m. ss. Malicor. Gal. immat. Aristol. rotund. ā ʒss. infunde calide in Aceti fortissimi ℥j.

R<sub>x</sub>. Aceti hujus Colati ℥ss. æruginis ʒv. mel. ʒxiv. Coq<sup>tr</sup>. lento igne ad Unguenti Consistentiam.

An other for this purpose, is his *Ungte. Peto*, which perhaps out of prejudice to the Plant, and its abuse among us, I have not so great Esteem for, as some others who mightily commend it, and frequently use it, which I have therefore here also inserted.

R<sub>x</sub>. Axung. Porcin. ℥ss. Colophon. ʒiv. Cera ʒiij. Suc. de Peto ℥j. Peti contus. mij. Coque ad Suc. Consumpt. tum adde Gum Elemni. Vernic. alb. Tereb. ven. ā ʒj. et Coletur pro Unguento maxime deterfivo.

The *Unguent. Emulat. cum Merc. Mundificat. ex Apio. & Paracelsi*, with the *Precipit. or Turpeth.* mix'd up as before, are also proper for the same Intention; but not to trouble you with other *Formula*, we shall make mention of those *Ulcers* proving *Corrosive*, by reason of a particular Acrimony or *Dyscrasy* of the Blood, being the product of some radicated Distemper, as the *Leprosy, French Pox, Scurvy*: Of the first of these I have discoursed in my *Treatise of the Diseases incident to the Skin*; of the second in my *Siphilys or practical Dissertation on the Venereal Disease*. It remains besides what we have said of the *Scurvy*, also in the first of these, that we add a few Words here of the *Ulcer*  
thence

thence arising, which is usually discover'd by the *Scorbutick* black and blew Spots, with other *pustulary Eruptions* *Ulcers.* and blotches breaking out in other Parts, as also by a general lassitude of the whole Body, rotten Gums, loose Teeth, stinking Breath, lixivate and sandy Urine, with other the Syndrome attending that popular Distemper; at which times you are not only to regard the Ulcer, as its outward aspect shall direct, but also to inspect the indisposition internally of the Juices offending, and to prescribe such proper Alteratives as may rectify their Disorders.

Thus in the *Acid* or *Cold Scorbutic Habits*, the hotter Remedies of this kind are to take place, such are the *Rad. Raphan. Sylv. Ari. Cort. Winterani. Aurant. Fol. Cochlearia Utriusque generis, Nasturtia aquatica*, and the like. In the hot *Saline Sulphureous*, the more temperate *Antiscorbutics* must have precedence, of which kind are the *Rad. Lapath. acut.* as excellent as most others, *Rubia Tinct. Acetos. Cichor. Taraxac. Summit. Pini Tamarisc Cort. Rad. Frangul. Fol. Plantag. Fumar. Aparin. Becabung, &c.* of all which, Diet Drinks both *Alterative* and *Purgative*, may be prepar'd, with the addition of some suitable *Cathartic*, as the *Fol. Senæ Alexandr. Rad. Jalap. Mechoacan.* Or the Plants being bruised, their Juices may be exprest, which together, this way convey their Vertues to the Blood much better than in other Forms, several whereof and of each kind, are to be met with in the Works of *Dr. Willis*, who hath written accurately of this Distemper, and some of which you will find inserted in our *Traët de Morbis Cutaneis*, in the third Chapter of the *Itch*.

But when all others, whether *Internal* or *External*, have been experimented ineffectually, the last refuge is usually a *Mercurial Salivation*.



## Of Ulcers with spongy Flesh.

Of Ulcers  
with Hy-  
perfarcosis.

The *Ulcer* opposite to the Eating or *Corrosive*, is that abounding with *fungous* or spongy Flesh, by the *Gracians* named *Hyperfarcosis*, an accident as well owing to the Surgeons inadvertency oftentimes, as to the nature of the *Ulcer* it self; for when after *Digestion*, the same Medicaments are still continued, especially that slabby *Sarcotic* the *Ungt. Basilicon*, remarkable above many others for producing this luxuriant Flesh; or if any other is still apply'd after the *Ulcer* is already incarn'd, no wonder the Flesh should now super-abound and rise above the level of the Skin, *Nature* being always ready as we have formerly noted, to carnify the nutritious Juices flowing to the Parts, if she is not hinder'd by some more powerful desiccating or drying Application.

When the Case so happens, and the *Fungus* is recent, you may try your *Merc. precipit. rub.* which we have so often commended, sprinkling thereof upon the spongy Flesh; and if lay'd on somewhat thick, and suffer'd so to lye for two Days, you will perceive the same turn'd into a *Slough*, which if not coming away of its self, it may be clip'd off with your Scissars, or raised by the end of your *Spathula*, that you may strow on more before the Flesh grows up again underneath; and thus Daily, or every other Day, proceeding till the same is reduced, when laying on a Pledgit of dry Lint, or lightly rubbing the Superficies with the *Alum* or *Vitriol* Stones, as were directed for the *Ulcer* with the moist *Intemperies*, you are to Skin over the same.

For this purpose there are sundry very drying Medicaments recommended, and very proper where the *Fungus* is mild, and scarce yet got over the brims of the *Ulcer*, such as the *Pulv. Gallarum*  
immat,

## Sect. VI. Of Ulcers with Hyperfarcosis.

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*immat. Boli veri. Ter. figil. Croc. Mart. rest. lapid. turtia Calaminaris.*

Among Vegetables, a strong Decoction of the foresaid *Gallæ*, the *Rad. Bistort. Tormentil. Fol. Ros. Plantag. Equiset. Centinod. Cortex. Querc. Granat. flor. Balaust.*

In these Decoctions made in the *Aq. Fabr.* for the more potent *Desiccation* may be dissolved, a bit of *Alum* or *Vitriol*, when *Pledgits* exprest herefrom, are lay'd down upon the spongy or luxuriating Flesh: But if the same prove stubborn, and give not way hereto, a *Catheretic*, or perhaps *Caustic* Medicine, may be required, such as the powders of *Alum* or *Vitriol Crude*, or the former calcin'd, and then mix'd with the *Red precipitate*, improperly I think now call'd *Pulvis Angelicus*: Also the *Calc Viva* is a good Remedy at these times, and still more powerful when made into a Past, with the *Lixivium Capitale*. The strongest is the *Lapis Infernalis*, prepar'd as formerly shewn, out of the said *Lixivium*.

The *Corrosive Sublimate*, and the several *Arsenics*, I have no Opinion of, and therefore cannot recommend them.

For this purpose also, there are several prepar'd *Lints*, the Cloth being either dip'd in some of the foresaid Liquors, or *Stiptic Decoctions*, or in some solution of the *Aluminous* or *Vitriolate Salts*; afterwards hung up to dry, and then scrap'd out into *Lint*; or the *Lint* it self steep'd therein, and dry'd for Use. One of these *Fallopious* has presented us, but by reason of the *Sublimate* therein, upon which the principal Efficacy depends, I shall wave the Transcript thereof.

I have frequently cut out my slips of Linnen-Cloth worn fit for the purpose, and dissolving about a Dram of the *Roman Vitriol*, call'd by the Surgeons

*Lapis*

*Lapis Calestis*, in four Ounces of spring Water, I have thoroughly wetted them therein, and gently expressing the Liquor, hung them up in the shade to dry, after as I had Occasion, scraping them out into *Lint*.

But observe in the use of these sharp and biting Medicines, you must at all times regard your Patients Age, Sex, and habit of Body, for that Remedy which is but mildly *Deterfve* in some rustic Bodies, will be found a *Catheretic* in young Infants and Children; where the gentlest also of these last, will prove here an *Escharotic* or *Caustic*; but to proceed.

In old or inveterate *Ulcers*, accompany'd with this Accident, where the same is grown obdurate, especially if Malignity is suspected, this way by *Caustic* will be too hazardous, in exciting Pain, as also tedious; wherefore the Knife or *actual Caustery* will be the most effectual to suppress the farther Growth, and level the excrescing *Fungus*, as we observed, when discoursing of the *Sarcoma*: And after the removal of the *Eschar*, or before the *Ulcer* is again fill'd up, the surface may be dry'd by the *Vitriol* or *Alum* Stones, if the *Lint* prepar'd as above-mention'd, prove insufficient.

But where you have reason to be jealous of a *Cancer*, to be infer'd from its *horrid Aspect*, *livid Complexion*, *turgid Vessels* round about, *inequality in its Surface*, *Induration* or great *Hardness*, *sprouting Fungi*, like the heads of the *Colly-flower*, and withal cutting or darting Pains quite through, frequently returning, *fetid* or *stinking Gleets*, with *Hæmorrhage*, as were observed in our account of that terrible Disease at the end of our first Section. Observe what we have there advised, and be just both to your Patient and your own Reputation, by an honest *Prognostic*: That is, having apprised him of the Danger, do what you can



## SECT. VI. Of Ulcers with *Hyperfarcosis*.

can to *palliate* and make him easy, if you concern your self at all, but meddle now with no *Corrosives*, nor deceive him with a vain hope of Cure.

And thus much of *Ulcers* with *fungous Flesh*, concerning which, it may be farther necessary I should acquaint you, that during your local Applications to the same, the habit of your Patients Body is likewise to be consider'd, and where there is *Plethora*, large and repeated bleeding will be requisite, together with a spare Diet: The former to empty the Vessels, and keep under any feaverish Effervescence kindled in the Mass of Blood, by reason of a sharp and painful Remedy made use of to waite the *Hyperfarcosis*; the latter to abate from the nourishment of the Parts in general, and prevent the too great Afflux of the nutritious Juice to this in particular, which would supply still farther Materials to the Disease.

If the Body be *Cacochymic*, *Purgation* must also be directed at proper Intervals, by which not only the noxious, but the superfluous Alimentary Humours will be exonerated.

*Compression* and *strict Bandage*, especially after the *Fungus* is taken down, are here also of absolute necessity to suppress the rising of new Flesh, and keep what is risen upon an equality with the Edges of the *Ulcer*, in order to *cicatrise* from the same: And Note, that during the use of *Catheretic*, *Septic*, or *Caustick* Medicines to destroy the superfluous Flesh, a *Digestive* is to be apply'd over the outside, that may hasten off the *Sloughs* thereby occasion'd.

It were needless I think to give Instances either of this or the foregoing, which are every where so exceeding Common, that scarce a *Fontanel* but shews us an Example of this last, especially in moist Bodies, or a simple *Ulcer* with Pain and Fluxion in the hot and dry of the first: So that avoiding all

I can of being too Prolix, the *Ulcer* we shall next take notice of, is, that with *Callous Lips*.

### Of Callous Ulcers.

Ulcers with  
Callous  
Lips.

This Accident is very common to *Ulcers* of long Continuance, and in others of a shorter it is sometimes promoted by the too early use of *desiccative Medicines*, before the Digestion is accomplish'd, or the *incarning* of the *Ulcer* rightly Compleated: Whence the Juices flowing to the Part, which should be turned into Matter, or converted into new Flesh, being by these means stop't about the sides and brim of the *Ulcer*, indurate thereupon, and having more of the same supply, stagnating as it were round about, the *Callosity* is increased, and the Lips farther thickened, by which the Cure of the *Ulcer* is obstructed and render'd impossible, till the said *Callus* is soften'd, and waymade for the imprison'd Humour to come forth and fill up the Cavity: Or being implete with sound Flesh, to shoot forth from the Edges, and as it were *Chrystalise* into a new Skin that may cover the Surface thereof.

Wherefore it is evident, that the prime or chief Intention in the cure of these *Ulcers*, is first of all to soften or relax the indurated Edges or Lips of the same, which you may attempt by some *Emollient Decoction*, as a *Fomentation*; also by *Cataplasms*, *Emplasters*, or *Embrocations*, the former may be prepar'd, *ex Rad. Alb. Bryon. lil. Fol. Alb. Malv. Verbasc. Parietar. Mercurialis. Branc. Urfin. &c.* with the the Liquor of which after the use of the *Forus*, a *Pultis* may be made by thickening with the *pulv. flor. Chamom. Sambuc. Melilot. Sem. Lini ac fœnugr.* or the *Magma* of the Decoction being well bruised and pulped, may be apply'd in the same Form.

Em-

## Sect. VI. Of Callous Ulcers.

*Emplasters* for this purpose are those *de Mucilagin. cum Ammoniaco Solut.* or that *ex Ammoniaco* by it self.

*Liniments* or *Oyls* are the *Ungt. Dialth. Ol. Lil. Lumbric. ex Pedibus Ovil.* also the *Axungias*, as the *Porcina*, *Anserina*, and beyond them all, in the Opinion of some, the *Humana*.

But we have less reason, to multiply Remedies for this End, since what we have formerly deliver'd concerning the *Schirrus*, may be transfer'd hither, being equally serviceable in these Cases.

If the *Callus* is so firm, hard and cicatrised about the Edges, that the Pores of the little Tubes are thereby as it were lock'd up, the same is either to be rub'd off with a *Caustick*, or cut away with the Knife; afterwards afresh digesting the Ulcer with the *Basilicon* and *Precipitate*, and continuing still for the farther relaxing and setting open the Pores, the use of your emollient Applications round about. When having repair'd the lost Substance, if there was any to fill up, the remaining inequality upon the Lips common to these Ulcers, may be sometimes level'd by *Plaister Compress* upon the prominent Parts, assisted by a strict *Bandage*, especially the *laced Stocking* or *Arm-piece*, which may bring the Parts protuberating to fall in, and by the help of your *Epulotic*, to cicatrise smooth and even with the rest.

This way of cutting off the *Callous Lips* of Ulcers, as well as Burning, was not only customary with *Severinus*, by some call'd *crudelis Chirurgus*, or the severe Surgeon; but is recommended also by *Senner-tus*, and even *Galen* prefers that way of Extirpation by the Knife, to the *Escharotic*, being much easier to the Patient, and less subject to intervening Accidents, if safely situate.

The



The *Septic* or *Caustics* for this use, may be taken from what we just above deliver'd concerning the *Ulcer* with *Hypersarcofis*; where the Edges are raw, the milder may be first Experimented, such as the *Ungt. Apostol.* or *Ægyptiac.* mixt with some *Cathe- retic* Powders, as the *Merc. precip. rub. Turpeth. Min. illotum. Pulv. Angelicus* or the like, more or less, as the *Callus* happens to be confirm'd, and according to the strength and habit of Body also: But if the Lips are skin'd over, they will bear yet stronger Remedies, as the *velvet Caustic*, the *Butter of Antimony*; nay the *Lapis Infernalis* itself, or the strongest Soap-*Lees* boyl'd up to a Stone, as we have describ'd the same at the beginning, or in our first *Section*, to be rub'd round the *Callous Lips*, till they are sufficiently excoriated; after which, and the *Sloughs* thereby occasion'd, separated and cast off, the others, a degree milder, may now very probably suffice to consume the remaining hardness.

It has been customary with some Practitioners [and I have used them my self formerly] to apply the *Arsenical* and *Sublimate Troches*, either powder'd and mix'd up with a *Digestive*, or in a *Past*, like the *Troch. de Minio.* shaping the same to, and covering the *Callous* Edges all round therewith: But I have already, from my own, and others Observations of bad Accidents sometimes ensuing these Applications, shew'd my dislike of such Compositions, nor can I see any necessity of calling them into common Use, when we have others less hazardous, that will perform our Work: So that leaving you to select such, as may be with more safety enterprized, from those we have here, and in other places, recited, I shall proceed to the *Simu- ous* and *Fistulous Ulcer*. When I have given you one History of a *Callous* one, and farther acquainted you that at these times also the Patient is between  
whiles

whiles to be purged with some suitable *Cathartic*, in which *Calomel*, if nothing forbids, is always to be an Ingredient, as the most potent Remedy to incide and attenuate the Viscous Humour any where impacted in the Body: The Diet likewise is to be such as affords good Juice, and is easily Digested, while the whole Physical *Regimen* is prescribed with a view of perspiring the stagnant Juices, and refeeding the Tubes therewith obstructed, as we formerly observed concerning the *Schirrus*; and farther taking regard, that whilst you are using these sharp and corroding Medicines, to the Lips of the *Ulcer*, the Parts about are well defended by some *Anodyne* Restraining, or repelling Application, whether Plaster, or lenient Embrocation, as we mention'd at the beginning of this present *Section*, when discoursing of the Fluxion attending those *Ulcers* complicate with great Pain and a hot and dry Distemperature.

A Person middle aged, of a *Bilious*, thin Temperament, from scratching a *Pustule* on the outside of his Leg, had the same gradually improv'd into an *Herpes exedens*, or a fretful *Ulcer*, the Compass of a Hands breadth, with high and pouting Lips all round, but hollow, and withal unequal in the midst: In order to the Cure whereof, he had undergone much Pain, through the *Sublimate*, *Aluminous*, and *vitriolick* Washes, made use of by several *Empirical* Undertakers, in hopes of drying it up, neither regarding the *Digestion* of the *Ulcer*, nor correcting the malign Disposition of the Humours, by proper internal Remedies; from whence a sharp *Ichor* only flow'd, and that in great quantity, the Edges grew *Callous*, and the *Ulcer* so excessive painful, that he could take no rest.

In this wretched Condition he sent for me, after he had thus languish'd for two Years and upwards:  
And

And truly upon the first taking of the Rollers, wet with a stinking *Gleet*, and the frightful appearance of the Sore underneath, *crude, hard, unequal and painful*, I was suspicious of a *Cancer*, till enquiring farther into the Case, and the Method of their late Treatment, I had better hopes: Yet at best, perceiving it like to be a Work of Time, I recommended the *Hospital*, as the easiest way of Relief, for a Person who I thought otherwise incapable of getting the same: But this it seems was an Affront, and under some Resentment, he told me if I could Cure him, as mean as he appear'd, he would give me Ten Pounds, and had a Friend upon occasion, that would advance for him so much more: I told him, it was never my way to warrant the Cure of a cut Finger, much less so stubborn a Malady as he labour'd under, that being fit only for *Quacks*, and other *Impudent Pretenders*; But I did believe his Cure might be accomplish'd, and if he put himself under my Care, I would use my utmost endeavours for the same, wondering indeed that a Person who had Twenty Pounds to ascertain for Satisfaction, should have apply'd to these *vile Impostors*, who had almost ruin'd him.

The next Day a Person came from him, who made me such an Offer, as was agreeable; and I immediately began the Cure, by rubbing the Lips of this large *Ulcer*, with the *Lunar Caustic*, which was several Minutes before it enter'd or discolour'd the same; the rest of the *Ulcer* I cover'd over with *Precipit. rub.* and a Pledgit of the *Basilicon Flavum*, rolling up the Leg.

There were several small rotten *Ulcers*, or deep Holes in other parts thereof, in each of which lay a *putrid Slough*, the Edges in like manner indurated, by means of those harsh and drying Applications,



ons, which had been here also apply'd, these I dress'd up after the same manner.

The next Day after Application of the *Caustic*, and the Use of the *Precipitate*, I perceiv'd the *Gleer* much abated, with a small Tendency to *Digestion*: The Patient assuring me, that after two or three Hours from the dressing, the Smart going off, he had more Ease than in many Months before, and was able to lye in his Bed, without rising in the Night, which he had not done of a long time.

In those Parts of the Brims where the *Caustic* had made Impression, in order to thicken the *Eschar*, and penetrate deeper, I dip'd the End of my Probe in the *Butirum Antimonij*, and lacquer'd it all round as it were of a Silver Colour: The other Parts where it had not made any, I lightly excoriated with a Touch of the *Lapis Infernalis*, then sprinkling on more of the *Precipit.* apply'd the *Digestive* over all the other small ones, dressing each with a suitable Doffil dipt in warm *Liniment*, first shaking on a little of the same Powder, with an outside Pledgit of the *Digestive*, rolling up again as at first.

Thus in about ten Days time, the *Sloughs* digesting out of these small *Ulcers*, the same were soon after *mundify'd* and grew easy, the Edges softening and in good Forwardness towards healing: But those of the large one were more stubborn and rebellious, being likely to prove a Work of longer time. However being *Digested*, as the *Sloughs* upon the Brims occasion'd by the *Butter of Antimony*, cast off, I renew'd the same or the *Lunar Caustic*, gradually as he could bear it, till I had wasted a great part of the Prominence round about, embrocating the inflamed Parts with a little *Ungt. Sambucin.* and confining my Patient for the most part to his Bed, without which Engagement, I would never have undertaken the Work; for here-

by the Fluxion was kept off, and the Tumour, which when I began was very considerable from the Knee to the Toes, was in a manner totally subsided.

When I had thus digested the *Ulcer*, I put him upon taking the Alterative Electuary with th *Æthiops*, the Medicated *aq. Cal.* as directed in the eating *Ulcer* with great Pain, likewise *Calomel.* between whiles, with the *Rheubarb Infusion* the next Morning to purge of, as thus.

*Rx. Calomel. ℥i. Conf. Francaft. ʒss. m. f. bolus sero vesperi sumendus.*

*Rx. Rad. Rhei. tenuiter incis. ʒi. Fol. Senæ ʒij. Sem. Coriandr. p. j. Sal. Tart. ℥i. Infunde in aq. bullientis q. s. pro Colatur. ʒiij. in qua solve Mammæ opt. ʒi. & f. potio leniens Cathartica pro seqti. mane. Repetatur Bolus Mercurialis & potio lenitiva semel in 7<sup>a</sup>. pro iv. vicibus.*

Nevertheless such was the inveterate Nature of the Humour, and the Stubbornness of the Brims, that tho' I had laid them almost upon the Level, they would not skin, but rather sprout up again even before the casting off the *Eschar*, remaining still *Cancerous*, jagged and unequal, the Flesh likewise in the middle no longer clean or florid than the *Precipitate* was continued: So that perceiving the slow Progress made for some Weeks past, and fearing I should be foyl'd in this way of proceeding, I proposed the laying of a flat Cautery lightly, and only once, upon the *callous* Brims of the *Ulcer*, and that way have try'd to subdue their stubborn malignant Quality, but my Patient would not hear of it, beginning to be uneasy, as I was my self.

The *Ulcer* was yet too painful for the strait *Stocking*, which I had got ready for him, and had laced on once very gently, but he could not bear it.

About

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About this time I was call'd in upon an ancient Gentleman who had formerly been chief Surgeon of an Hospital Ship, to consult upon a *venereal* Case then under his Care, and in some Talk of *Cancrous* and *Callous Ulcers*, he told me he had an infallible Cerate for dissolving the same, which I understood was, an *Opodeldoch* like that, of *Wurtz*, only made a little softer than our Dispensatory *Empl.* of that Name, of which he presented me with a Gally-Pot, and I try'd it upon our *Ulcer*, as I had done the *De Ranis cum Mercurio*, and a Quick-silver Liniment before that: But I could perceive little ground gained hereby, more than the former; so that for making some greater Effort by way of Revulsion, and for his speedier relief, I order'd 8 Grains of *Turpeth. Min.* in a Bolus, which worked as he call'd it *doggedly*, that is roughly, but which I perswaded him was the fittest Remedy for a *dogged* Disease. Two Days after this, I perceiv'd a sensible Amendment, and so did my Patient, being much easier and freer from Pain, the *Ulcer* milder, better digested, as well as the Flesh of better Colour, and the Brims more tractable, the little *Ulcers* presently after *Cicatrising*.

I still continued the *Precipitate* with the *Digestive*, and Silver'd the Edges where they lay yet high and uneven, with the *Butirum Antimon.*

The fourth Day after, I gave him 9 Grains of the *Turpeth.* which strain'd him as before, Vomiting him ten or a Dozen times: The next Day he grew so easy that I got on the strait Stocking, lacing gently that he might be the better pleas'd with it at first, and straitening gradually every Day.

The second after the last Vomit I perceiv'd him flavering, complaining of the Soreness of his Chaps, and that he could eat no Victuals, and looking into his Mouth, I found some *Sloughs* beginning to



fix on the Inside of one of his Cheeks, his Gums swell'd, and his Breath stinking: Wherefore taking the Opportunity, and concealing my Intention, I order'd a proper *Regimen* of thin Broths and Grewels, muffling up his Jaws with Flannel tack'd up to his Cap, and repeated the *Turpeth.* the third time; so that his Mouth growing still forer, a *Salivation* came on, when I encouraged him with Hopes of a speedy Cure therefrom: And indeed he was the better reconciled after a few Days, perceiving as the Sores in his Mouth, and his Spitting increased, that in his Leg healed with a little *Precipitate* now mix'd with the *Digestive* for the middle, and my *Cerate* on the outside; by the Help of which and the strait Stocking, the Edges softening and lying smooth, we daily got ground, and before his Spitting, which lasted 21 Days, was at the Heighth, the *Ulcer* from the Breadth of a Palm, was drawn into the compass of a half Crown: When by the Help of dry Lint, with the *Cerate* over it, his Cure was compleated at the Months End from the first Dose of the *Turpeth.* in which time we made greater Progress than in two before, or than we were likely in two or 3 more without this Revulsion, which render'd this malign *Ulcer* so mild and tractable, that as in the Case of other *Cancerous* ones from a *venereal* Taint [tho' here was no room to suspect any thing of that Nature] we could see at each Dressing a manifest Progress to the Cure.

After this I purged him 3 or 4 times at proper Intervals, kept him sometime after to his *Sarsa* Drink, and enjoying the Continuance of his laced Stocking, secur'd him from Relapse.

Of *Sinuous* Ulcers.

We are now come to the *Sinuous*, and here I think Of *Sinuous*  
Ulcers.  
I need not tell you that an *Ulcer* is so called, when besides the common Cavity [if there be loss of Substance] some farther Hollowness either strait or winding, is discoverable upon Search with the Probe, under the Skin or Musculous Flesh, wherein Matter is lodg'd, and whereby, altho' you have incarn'd or fill'd up that common Cavity with Flesh, and brought the same to a *Cicatrix*, yet are you as far as ever from a Cure, by reason of the said Matter nesting it self in that *Sinuosity* or Passage out of Sight.

These are commonly the Effect of some *Absces* or *Apostemation* gather'd and broken, where the Matter having insinuated between the Interstices of the Muscles, if seated on the fleshy Parts, or into the Cavities of the Joynts, when near unto the same, and after the Discharge, altho' the visible Hollowness which contained great Part of the said Matter, unites or otherways heals up, yet that from the *Sinus* inconspicuous, still continues from some Orifice on the outside leading to the same, retarding the healing up of the *Ulcer*, and at sometimes rendring it very difficult, if not impossible.

In order to the Cure whereof, when you have discover'd what way the *Sinus* runs, if recent and well Scituate for the purpose, you are first to fit a Plaister Compress, as we have formerly directed to the Length and Breadth thereof, endeavouring by good *bandage* over, to express the contained Matter and unite the Hollowness, which if not of too long standing, and superficial withal, is frequently brought about hereby: But this proving ineffe-

## Of Sinuous and Fistulous Ulcers. Sect. VI.

ctual or impracticable, you are to try, if by making a Vent or Opening in the lower or more depending part of the *Sinus*, you cannot hereby drain off the Humour, and unite the Remainder, as we took Notice in the *Phlegmon* suppurated, and as is practis'd in the Milky *Abscesses* of Womens Breasts, by which you may sometimes save your Patient much Pain, and hazard, also ensuing the cutting through the whole Cavity, where the Nerves, *Tendons* or *Arteries* lye in the way.

But if this cannot be done, as in *Sinus*'s running deep into the Joynts, among the tendinous Parts, the large Blood-vessels, also into the Cavities of the Breast or Belly; or unsuccessful, as in *Ulcers* of long Continuance, where the Parts underneath are all Tainted and Corrupted by the Virulency of the Matter: At such times, I say, there will be wanting a sound Judgment and Circumspection; for altho' in the superficial *Sinuosity*, that lyes clear of those Dangers, you may boldly enter the Shank of your Probe-Scissars, and snip them up at once, yet in those profound and intricate or winding, having also more Cavities than one, which is very frequent, you will see the Necessity of that Knowledge in *Anatomy*, the Study whereof I have so earnestly advis'd you to, at the conclusion of my fourth *Section*; by which you may be instructed where the *Rocks* and *Shallows* lye, and where you may safely steer the Course of your Knife, without wrecking your Patient's Limb, or Life, or your own Credit and Reputation.

It was this Knowledge, Gentlemen, that many Years ago, before *Anatomy* was arrived at the Perfection it is at present, which made that bold Practitioner *Severinus*, so fam'd for Cures, by others passing for incurable, and by which he made himself further Noted for that of a *Sinuous Ulcer*, in  
the



the *Perinaeum* of the Son of the King of *Fez*, where two *Ulcers* at some distance were found to communicate by one common *Sinus*, which he undertook and laid open, and also cur'd, after all the greatest Artists in that Kingdom had pronounc'd the same, through Ignorance 'tis to be suppos'd in the anatomical Dissection, as absolutely incurable: But returning;

In the farther Management of these *Sinuous Ulcers*, whether penetrating the Joynts or other Cavities of the Body, and thereby rendered incapable of throwing open, you may take those proper Hints for your Direction, which we have before in our last, laid down for Wounds penetrating those Parts, wherein we have told you the main Stress was lay'd upon the internal Prescription, to temper and soften the Juices of the Blood, and dispose the Parts within for Consolidation: And in those *Sinus's* altho' not penetrating the inward Cavities, yet by reason of Danger from some Tendon or Artery in the way, less capable of being dilated, having in vain try'd to compass your Design by Compression and good Bandage, where the Parts will admit thereof, as in Wounds, so likewise here it is propos'd we should make use of *Injections*, taking Care the Limb be so placed as may afford a ready Passage out again for the same; for furthering whereof, if you should think fit to make Experiment, I would advise you as some others have caution'd, to let the external Orifice remain open at the time of throwing in the Liquor, by no means stopping or keeping it in with your Finger or Pipe that filleth up the Entrance.

To this purpose, after *Digestion*, in order to mundify, *Decoctions* may be prepar'd ex *Fol. Hyperic. Centaur. Marrub. Chelydm. Absinth. Agrimon. Apii rad. Aristol. Enul.* fewer or more, in which according to the degree of Putrification, are to be dis-

solved *Mel. Ros. cum Tinct. Myrr. vel Flos Ungti. Aegyptiac.* ʒij. of the first ʒss. of the second with ʒij. of the last to ʒij. of the *Decoction* streined.

After *Deterfion*, in order to *agglutinate*, your *Injection* is to be prepar'd *ex Rad. Symphiti. Tormentil. Bistort, Fol. Plantaginis. Equiset. Cort. Querc. Granat.* to which are added the fine Powders of *Myrr. Sarcocol. Aloës.* Thus. together with the said *Mel.* and where greater *Deficcation* is requir'd, the *Aq. Calcis cum Syrupo de Rosis ficcis*; likewise a Solution of the *Lap. Medicament.*

During the Use of these, which I must confess I was never fond of, as believing without the Help of *Bandage* little good would come thereof, the Patient must be kept strictly to a *Decoction* of the *Woods*, among which in the cold and *Phlegmatic* Constitution, the *Guajacum* takes Place; but in the hot and dry, the same must be left out. To these may be added at the Close of the *Decoction*, one or more of the *agglutinative* Plants, or those call'd *Vulnerary*, observed in our Discourse of Wounds, to which we refer for avoiding Repetitions. The Patient is also sometimes to be purged with *Calomelanos.* Nor shall I think it needful to give Instances of these *Ulcers*, which are so very common, that scarce one *Absces* happens which does not furnish some Example hereof.

## Of Fistulæ.

Of *Fistulæ.* When the *Sinuous Ulcer* therefore has been of long Continuance, and not only in its outward Orifice, but through the whole Cavity thereof, has contracted a *Callosity*, it then changeth its Name for that of *Fistula*, in whose Cure, as in the last, you are duly to weigh the Place of its Situation, to what Parts reaching, and what may happen to lye in  
your

your way, should you enterprize the Dilatation, all which consider'd and found safe, yet contrary to the former, you have generally something yet to do, I mean the wasting or consuming of the *Cal-lus*, which has harden'd their Cavities, as it were into so many *Pipes*, and from whence they have derived their Name of *Fistula*: For it is chiefly this Circumstance, that renders these *Ulcers* more difficult of Cure than the former, and which were so rarely accomplish'd by the Antients, at least in these Parts, that even within one *Century* past, the Cures of this Nature were accounted *Miracles*; and it was very remarkable, in one of your Fraternity, then living in *Tower-street*, by name *Boovy*, who, as *Dr. Read* gives us to understand, had written over his Door [doubtless in Gold Letters.] *Here liveth one that can cure a Fistula.*

The Seat of these *Fistula* is very commonly some *Emunctory* of the Body, such as the *Groyn* or *Armpit*, also the *Joynts*, with the Cavities of the *Breast*, and *Belly*, many of whose Cures are only what we call *palliative*, that is, according to some, proceeding by the way of *mundifying*, and *agglutinating Injections*, where the Passage for the same out again, can be secur'd, which in those especially not penetrating the Trunk of the Body, may be with greater Safety enterprized, as we directed but now for the *Sinuous Ulcer*; or depending wholly, as in those which do so penetrate, upon the *Traumatic* and *Balsamic* Remedies directed internally, whilst the outward Orifice of the *Ulcer*, is kept open as a *Fontanel*, in the manner described for the penetrating Wounds of the same Parts.

The *Anus* is also subject to this Disease, which if the recent Production of a *Phyma*, or an Apostemated *Hæmorrhoid*, and not extending its *Hollowness* beyond the Command of the Finger in  
*Ano,*



*Ano*, is with less Difficulty cured, either by the *Ligature* or *Incision*; but if of long standing, or grown *Callous* through its whole Cavity, the Trouble will be found much greater; likewise if it lye out of reach, or pass its Matter from above the *Sphincter*, there will be Hazard, more especially in elderly Persons, by cutting through the orbicular Fibres of the same, of the Stools passing involuntarily afterwards.

For the Cure of a confirm'd *Fistula*, or which is the same, a *Sinuous Ulcer* grown *Callous*, there are several *Cathartics* used to wast the said Hardness or Pipe-like Nature of their Cavities; and in diverse Forms, the *Basis* of which are the *Alumen*, *Vitriolum*, *Merc. sublim. corrosious*, *Auripigm.* *Calx viva*, *Æs ust.* *Merc. Precipit. rub.* *Turpeth.* *Min. alb. seu. illot.* *Butir.* *Antimon.* several Forms of which you have in the fam'd *Troches* of *Andronius*, *Polyida*, *Musa Joannes Arden.* which being Powder'd, are made into a sort of *Paste* with some *Unguent.* as the *Ung. Apostol. fuscum, seu ægyptiac. mundif. ex Apio.* with which *Tents* of sufficient Length and Bigness are armed, and rolled round in some more of the said *Powders*, when they are introduced into the Cavity.

Some dissolve these *Powders* in *Liquors*, and then inject them, but this I think a *Practise* not fit to be imitated, not only on account of the *Pain* and *Uncertainty* of their coming out, as either too soon or not soon enough, but for that of their unequal or disproportionate Operation, whilst they destroy more than is needful, being shut up in some winding or depending *Sinus*, and leaving others in a manner untouch'd, that lye higher above them.

In rustic Bodies, where the Pipe is small, out of the way of any nervous Parts, notwithstanding my Prejudice against the *Sublimate*, I have yet adventur'd to waſt the *Calloſity* with a *Troch.* of *Minium*, rolled up Tent-Faſhion, which I ſhould not have cared to uſe upon others. This being left in for a few Days, with a *Digeſtive* on the outſide, comes away with the *Callus* ſticking round in the Shape of a thick *Slough*.

The Form of which *Troches* as I have uſed them my ſelf, I ſhall here give you.

Rx. *Medul. panis alb.* ʒſs. *Merc. ſublim. corras.* ʒi. *Minij.* ʒſs. *Aq. roſar. q. s. ut ex omnibus permixtis formetur Paſta, ex qua fiant Placentulæ vel Trochiſci ac Rotulæ, in umbra ad uſum exiccanda.*

Where I have been fearful of theſe, I have ſometimes rolled out a Bit of the *velvet Cauſtic* ſuited to the Cavity, and haſten'd the *Digeſting* out the ſame, with the *Eſchar* thereby occaſion'd.

The *Pulvis Angelicus* may be prepar'd in like manner *cum Micapanis*, as were the *Minium Troches*, and rolled out into diſverſe Lengths and Sizes againſt Occaſion offers.

Others laſtly for the ſame purpoſe make uſe of the *medicated Candle*, prepar'd throughout its whole Length, as it is uſed to conſume the *Caruncles* in the *Virga*, tho' ſomewhat ſtronger for a *Calloſity* confirm'd by Time, a Form of which you will meet with in my *Siphylis*.

The *Callus* being thus deſtroy'd, and the *Ulcer digeſted*, you are now to ſet about the Cure, either by the *Mundifying Sarcotic*, or *Agglutinating Decoctions* above preſcribed, where you cannot come with your Knife to dilate the *Sinuofity*: Or where you can, if the ſame lies deep or thick, as we ſaid

said in our Discourse of *Abscesses* thus terminating, you may have some Advantage, by farther enlarging or widening the said Cavity with a Tent prepar'd of *Gentian* Root, or a Piece of Sponge fitted for that Purpose, which being enter'd the *Sinus*, and imbibing the Humidity thereof, will in few Hours distend it self, and enlarge the same to more than twice its former Dimensions, even at once or twice using; whereby in few Days you may not only make more room for your Instrument, but so thin the Parts, as to render the dividing much easier to your Scissars, and less painful to the Patient.

For this End, you are to pick out the pithy and soft Roots, or being dry, to make them so, by laying them in a moist or damp Place, as a Cellar, where they will soon become fit for Use.

The *Sponge Tent* is, I think, well known to be prepar'd out of Slices of the common Sponge, before-hand wash'd and clear'd of any fabulous Contents, then dry'd, and afterwards dipt in the hot Melilot Plaister, when it is immediately placed between the flat Plates of a juicing Press, and there squeezed close; after this, being thoroughly cold, it is taken out and laid by for this Occasion; when it is cut into such Lengths, and of such Capacity, as to fill up the Hollow of the *Ulcer* to be enlarged: And thus I shall finish what I intended to deliver concerning this particular *Ulcer*, after an Instance or two of some of them, and exhorting you to remember that before you enterprize these Operations (at which you should have always present some able Senior Assistant,) you are not only to prepare your Patient's Body beforehand by *Bleeding* and suitable *Purgation*, one or both, as the Circumstances may indicate, but to see also, as well sometime before, as after, that he



he observe the strictest *Regimen*; for which, and where such Help is to be had, it behoves you likewise to call for the Advice of a Physician, who may direct such proper *Alteratives* and farther Remedies, as may rectify or mend the present corrupt State of the Humours or Juices, lest otherwise the purulent Particles being now shut up in the Vessels, a *Hectick* Flame should be inkindled, and the Patient thereby have just Cause to date his greater Misfortune from the Day of his *Chirurgick* Cure: Which Cases are not uncommon; and happy were it for these unhappy People, that they would content themselves with their weeping *Fistula*, unless they became the Physician's Patient before they enter on their Cure by *Surgery*.

A Person of middle Age, full Habit, and free Hist. 72  
Living, being seiz'd with an Inflammatory Fever, of the *Pleuritick* Kind, attended with a dry Cough, little or no Expectoration, great Thirst, Oppression on his Breast, and restless; after 10 Days Attendance by his *Apothecary*, the Case in a manner desperate, notwithstanding repeated Bleedings at the Beginning, a Tumour shew'd it self on the Outside, above the *Diaphragm*, at some Distance from the *Spitze*; upon which Account I was call'd in, and pronounc'd the same a Critical Translation from Within; to forward the advance whereof, I advis'd a *Cataplasm* of the *Fici pingues*, *Rad. Lil. alb. Alch. Sem. Lini ac Fœnugr.* as for the *Phlegmon* that way tending, has been mentioned formerly; by the Repetition of which in a Week more, the Tumour advancing arose high and prominent, and the Matter began to fluctuate underneath: Whereupon, with all convenient Speed, to prevent a Rupture thereof into the Cavity on the Inside, I laid a *Caustic* towards the Bottom of the Rising, and returning in an Hours Time, pierced the  
the

## Of Sinuous and Fistulous Ulcers. Sect. VI.

the *Eschar*, whence there flow'd forth a large Quantity of a greenish ill-scented *Pus*.

After which I dress'd up the *Ulcer* with a Pledgit of *Basilicon*, a Plaister, light Compress, and *Bandage*, being a Child's Roller of fit Length round the Trunk of his Body: But the same Evening I was call'd to renew my Applications, the Discharge still continuing, and fouling all the Bed in a surprizing manner; the Patient through the Greatness of the same, together with the putrid Stench, often fainting away; and indeed, when I came to see the Condition he was in, it seem'd as if the whole Cavity of the Chest had been a Pond of Matter, issuing forth this Rivulet I had made for its Discharge.

Dressing up again as before, and shifting his Linnen, I order'd him a comfortable *Julap* for the Support of his Spirits, with some *Volatile Drops* therein; also *Hungary Water* as an *Epithem* for his Forehead, Temples, but more especially his Nostrils; and farther, that they should burn somewhat frequently in the Chamber, that might in some measure overcome the Scent.

The next Day, being provided of an *Elixiriat fatus*, with some *Camphorated Spirits* put therein, I took off the foul Cloaths, and having order'd the Parts round about to be clean'd, apply'd *Stuphs* exprest hot out of the same, as the Condition of the Part allow'd.

The Discharge still continu'd in greater Quantity than could have been expected, and withal extremely foetid, insomuch that I was deliberating once, whether or no an *Injection* prepar'd from a Decoction of some *Vulnerary*, as the *Summit. Centaur. Hyperic. scabiosa Agrimonia*, or the like, with a little *Tinct. Myrr. & Mel. Ros.* might not be useful in *Deterging*, or at least Correcting the Putrefaction;

But

But the Fear of the same not venting together with the Matter, restrain'd me, (as it had done several times before,) especially when I reflected upon 2 or 3 Cases where I was call'd in, and where I had Reason to surmize the like Practice, instead of Helping, had done much Harm. So that continuing my Fomentation, and dressing after the Manner I began, till the *Eschar* separated, the same now lessen'd daily; when forming a Tent armed with Thread for its Extraction, and dipping it in the warm *Bals. Tereb.* with a little *Tinctura Myrrha*, I passed it down to the Bottom of the *Ulcer*, the rest being fill'd up with Dossils dipp'd also in the same Mixture, a Pledgit of *Liniment* externally, and the Bolster with Bandage as before.

Upon Discharge of the Matter, the *Symptomatic* Fever went off, but a *Hectic* ensued in its Place, or rather a *putrid Intermittent*, with returning Flushings in the Cheeks, accordingly as the *Exacerbation* and *Remission* of the same came on: His Cough was now more *humoural*, having a Mixture of the same Matter as was discharged by the *Ulcer*, his Breathing still *anhelous*, and *colliquative* Sweats so soon as ever he fell into his Sleep; all which coming upon a Subject, especially who by Hard-Drinking had near spoil'd before an excellent Frame of Body, could presage but little Likelyhood of a Recovery: However, to obviate all we could his present Symptoms, I directed a *Balsamick Electuary* with a *Vulnerary Decoction*, as an *Apossem*, to be drank therewith, also a *Linctus*, and a *Pearl Julap*.

Rx. Conf. Ros. fruct. Cynisib. ā ʒj. Bals. Lucatel. ʒss. Pulv. Haly. recent. pp. ʒij. Syr. de Symphito q. s. ut f. Elect. cuius capiat Q. N. M. ter in die horis med. cum cochl. in Aposematis. infrascripti superhaustis.

Rx. Rad.



R $\acute{e}$ . Rad. de Symphito ℥i. Bellidis cum toto Mj. Fol. scabios. Agrimon. Heder. ter. Capil. ven. Summit. Hyperic. ā Mjs. Rad. Liquirit. ℥ij. Coque leniter in aq. Font. q. s. ad ℥iij. colaturæ cui perfecte depuratæ per subſidentiam adde Aq. Limac. Mag. ℥ſs. Syr. Bals. Tolut. ℥ij. m. f. Apofem.

R $\acute{e}$ . Ol. Lini rec. ſ. i. Extr. ℥ij. Syr. Papav. Rhæad. ℥j. Syr. Bals. Tolut. ℥ſs. Sperm. Ceti ℥iſs. m. exquiſite pro Linctū, de quo Cochlear capiat urgente Tuſſi vel Phlegmate opprimenti.

R $\acute{e}$ . Aq. Laët. Ceraſ. Nigr. ā ℥v. Cinnamom. Hord. Paon. C. ā ℥ij. Coral. rub. pp. Margarit. pp. ā ℥i. ſucch. Chryſtal. q. ſ. m. f. Julapium. cujus [phiale prius agitata] ſumat Cochlear tria vel quatuor in languore Spirituum, precipue ſudoribus obrutus.

After ſome time, tho' my Patient ſeemed to get ground, yet finding the Diſcharge too great to allow of ſhutting up the Ulcer, when by Compreſs round about I had united the Sinuofity externally among the Muſcles, and fitted the ſame for it, I paſſed in a Cannula, by which the Matter by degrees dreined off, and after ſome Weeks by means of the Teſtaceous Remedies with a Milk Diet, a Medicated Aq. Calcis inſtead of his Traumatic Apofem, Milk alſo and a China Decoction, as here follows, his Blood was ſofter'd, and the Hectic Flame in a manner extinguiſh'd, ſo that he daily got ground and recruited in Fleſh, when the Matter ceaſing to flow longer forth, the Cannula was extracted, and the Oriſice admitted to heal up; ſince which, living more regularly than formerly, he has enjoy'd a State of Health beyond Expectation, being grown bulky again as before, but liable to a Cough upon the leaſt intercepted Perſpiration, or, as they call it, catching Cold, ſubject alſo between whiles to an Inflammation

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69

tion of those Parts, which, however, has been kept under hitherto by free and timely ventilating the Blood by *Phlebotomy* or *Venesection*.

*Rx. Rad. Sarsaparil. China incis. ā ʒij. Ras. Sassafr. ʒss. infunde prius in aq. Calcis tenui califacta lbvi. per xii horas, dein coquantur ad medias, sub finem addendo Capil. Ven. sanicul. Pulmonar. ā Mss. Colaturæ claræ adde Syr. Bals. Tolut. ʒjss. & f. Apofema de quo bibat ʒiv. primo Mane, quarta Pom. & ultimo Vesperi.*

*Rx. Conf. Rosar. ʒj. Spec. Diatrag. fr. ʒij. Cbel. Canc. simpl. Coral. rub. pp. ā ʒj. Syr. Capil. Ven. q. s. M. f. Elect. cujus capiat Quant. N. Mosc. Mane & Vesperi, superbib. lbss. Apof. seq. cujus eandem capiat quantitatem per se quarta Pom. cum tertia parte Lactis Vaccin. admistam.*

*Rx. China nodos. tenuiter incis. ʒij. Caul. Angelica ac Rad. Eryngij condit. ā ʒj. Rasur. Ebor. & C. C. ā ʒss. coq. in aq. f. q. s. pro Colaturæ lbij. quæ perfecte clara per subsidentiam, reservetur ad usum supra ordinatum.*

Not must I pretermitt what I think had very considerable Share in this remarkable Recovery: I mean the *Bals. Sulph. Anisat.* of which each Night for a Month together that is succeeding, he took 8 or 10 Drops lying down to Rest, in a Spoonful of the following Mixture, and to which he still has Recourse with great Benefit when he finds himself stopt up by Cold.

*Rx. Synde Symphiro Bals. Tolut. Capil. Ven. & Aq. Cinnamon. Hord. ā ʒj. m.*

This Balsam is wonderfully extoll'd by *Sylvius*, as is the *Terebinthinate* one by some others, for the

Cure of Internal Ulcers, as well of the Lungs as other Parts.

Indeed in the true *Phthisis*, or Pulmonary Consumption, where some *Tubercles* inflaming and apostematizing have formed *Ulcers* on those Parts, I have been fearful of administering these *Balsams*, as well as the natural ones of *Peru* and *Gilead*, by reason of their great Heat: Yet want we not *Fauteurs* of this Practice among our Modern Physicians of Note also. Thus *Dr. Gibbons*, in the last Stage of this Disease, where true *Pus* is daily spit up, gives frequently the *Gilead Balsam* to ʒj. twice a Day: The like Practice was espoused by *Dr. Cade*, together with a Course of the *Testacea*, and the Asses Milk, or *China* Decoctions at proper Intervals; but I will give you another Instance of these *Ulcers*.

- HIST. 73. A Girl of about 10 Years of Age, having for 5 or 6 Days past laboured under a *Peripneumony*, at least that Disease complicated with an Inflammation on the *Pleura*, for want of timely and plentiful Evacuation by Bleeding, was reduced, when I was sent for, to the State of a dying Person, breathing with the greatest Difficulty, or *Orthopnoical*, as Physicians call it, *i.e.* unable to respire, unless sitting upright, a settled or fixt Colour in her Cheeks, with a hard Pulse and dry Cough, the Extreme Parts in a manner cold; whence making a *Prognostic* of the utmost Danger, either by the bursting of an *Abscess* inwardly, or making its Way through the Branches of the *Trachea* into the *Bronchus*, and that way hazarding a Suffocation, I immediately order'd her to be let Blood; but through the Difficulty thereof, no Blood being this way to be drawn off, I directed a Cupping Glass to be set upon the pain'd Part of her Side, and Blood thence extracted by Scarification, which



which I had more than once found successful in Cases of the most imminent Danger of the like kind, directed by Sir R—d B—r. A Veficatory likewise was order'd for the Neck, and the following Oily Draught every 4 Hours for 4 times; also 6 Spoonfuls of the *Apozem* drank warm between whiles.

*Rx. Ol. Lini rec. ℥j. Syr. Papav. Rhead. ℥ss. m. f. Haustus.*

*Rx. Decoct. Pectoral. depurat. ℔j. Fimi Equin. ℥ij. Infunde simul & filtretur per Chartam, addendo Ol. Nuc. Mosc. gut. ij. f. Aposema.*

The next Day Matters seemed at a stand; no Expectoration nor Alleviation of Symptoms: She had taken only two of the Oily Draughts, and drank but little of the Infusion, her Stomach turning, she said, against them: Wherefore, finding her obstinate, and the Parents foolishly indulgent, not pressing what was necessary, I was about leaving them to their own Way, not thinking she could survive another Night; yet considering farther of the Matter, and they promising if I could order any thing which was not an Oily Medicine, they would perswade her, I directed thus:

*Rx. Aq. Cinnamom. Hord. ℥ij. Oxymel. Scyllit ℥ss. f. Mixtura, cujus sumat Cochlear. subinde superbibendo Cochlear. 4. Emulsionis sequentis.*

*Rx. Sperm. Ceti ℥ij. Sacchar. albi ℥ss. solve cum Ovi Vitello, & gradatim affundendo Aq. Cardui ℥xij. f. instar Emulsionis, tempore Usus Vitrum agitando.*

After this, promising I should hear from them the next Day, and not sending me any Notice, I concluded she was Dead, till about a Week after that I was sent for to take a View of a Swelling upon the Ribs on the outside. Whence I apprehended there was an Adhesion of the Membrane of the Lungs to the *Pleura*, and that Nature was now busy in forming an *Empiema*, by way of Translation to the External Parts: I was the rather suspicious of this *Mala conformatio*, as knowing the Child always subject to a Cough, and difficult Respiration upon any Motion extraordinary, or any little cold she had taken.

She still continued in her upright Posture, stealing a slumber between whiles, her colour in her Cheeks as formerly, but otherwise a ghastly Countenance, labouring in her Breath, and drown'd as it were in Sweats, which yet were rather hot than cold, and taking very little Food or Medicines, so that the whole being as it were committed to Nature; for the furthering her Endeavours in this desperate Effort, I order'd a dry Cup to be laid on, after which a *Cataplasm* of the *Sem. Lini & foenugr. fici ac rad. Lil.* to be boyl'd pulped, and apply'd to the Part.

The next Day the Tumour was much advanced, began to inflame, and rise higher in a Cone, in so much that the third after, I prepar'd a peice of *Caustic* of the *Lap. Infernal. cum tantillo saponis*, and fitting a perforation in a bit of Plaister, apply'd the same, leaving it on all Night, and the next Morning penetrated the *Eschar*, whence Issued near a pint of foetid Matter like the foregoing: After which the Child found such sensible Relief in her Breathing, that she was able to lye down in her Bed, and slept all the following Day and Night, waking like a Person transform'd, or with new Life.

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The Day following, passing my Instrument through the *Eschar* which I had dress'd up with a *Digestive*, after Discharge of the Matter that would then run freely out, I found a Passage between the fifth and sixth Rib, reckoning from below, into the Cavity of the *Thorax*, or the *Apostomated* Lobe of the Lungs on the same side.

The discharge daily lessening, tho' there still flow'd great quantity between the Times of Dressing: I made my *Prognostic*, that altho' the Symptoms all abated upon letting forth the Matter, yet was there no small danger of a *Fistula* being left behind, that might drein away her Strength, tho' more leasurely in the way of a *Consumption*; for confirmation of which, I procur'd a Consultation with Mr. *Blundel*; where it was agreed, that so soon as the *Ulcer* was fit for the same, if the Matter still continued to vent itself from within, a Pipe should be introduced: In the mean time the *Eschar* being cast off, I sprinkled the *Precipitate* on the spongy Flesh on the outside, passing a Tent of Lint fasten'd with Thread, dipt in the warm *Liniment* of *Arceus*, into the Perforation, a little way rolled in the same Powder, neither yet so large but that the Matter had a free Passage betwixt the Times of Dressing: Over this a Pledgit of the same *Liniment*, a soft Bolster and Bandage round about. I purposely here also forbore the use of any Injection, for the Reasons I have already given before, choosing rather to commit the whole of the Internal *Ulcer* to Nature's Industry, assisted by proper *Vulneraries* and *Balsamics*, then to interfere with such as however suited for to cleanse or heal, were attended with uncertainty of finding their way out again.

Among the former, were the *Sarsa Decoction*, prepar'd as in our last History, with a small *Aq. Calcis*, adding also the *Pol. Tussilag. Heder. Capil.*



*Ven.* Also *Electuaries* and *Eclegma's*, with the *Conf. Rad. de Symphito*, *Rosar. Spec. Diatrag. fr. Coral. rub. Margarit.* the *Syr. Bals. Tolut. Capil. Ven.* and the like.

But the Cough and Hætic still continuing, we changed this *Regimen*. For our last Refuge the *Asses Milk*, and *absorbent Powders*, in the Manner here inserted.

*Rx. Margarit. Coral. rub. Spec. Diatrag. fr. pp. ā Œss. m. f. Pulvis, sumendus in Cochleari Lactis Asinini. superbibendo ʒiv. ejusdem.*

*Repetatur Mane matutino, superdormiendo, & ʒta. Pom. quotidie.*

*Rx. Syr. Bals. Tolut. Dialth. de Meconio Aq. Cinnamon. Hord. ā ʒj. f. Mixtura, cujus capiat Cochl. unum vel duo prout Tussis postulat, eadem magis infestante.*

The Matter still flowing from the Ulcer, especially upon withdrawing the Tent, that the same might not be pent in, I now fitted the Orifice with a *Cannula*, and a Plaister snipp'd in the Middle, to give Way to the Corruption issuing through the Pipe, which being secur'd by the Roller, I gave Directions to their Servant to inspect the same daily; and, as often as there was Occasion, I promis'd to overlook them: At the same Time I recommended their carrying her three or four Miles into the Country, to prosecute this last Prescription of the Powders and Milk in a more clear and wholsome Air: When after a Week or Ten Days Time, all things went on with a Success beyond Expectation, the Child to Admiration recovering her Appetite, and therewith her Flesh, and the Discharge so lessen'd, that they concluded upon throwing out the Pipe, which began to be somewhat trouble-

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troublesome: But finding Difficulty therein, they brought her up to Town, when going to draw out the *Cannula*, I perceiv'd that by neglecting the Directions I had given, for turning it about once in Two or Three Days, and taking it out once a Week to clean, that the Perforations therein were fill'd up with Flesh shooting from the Sides of the *Ulcer*, so that it was not without a little Force, and a small Effusion of Blood, that I could my self disengage the same: Which being done, I dress'd up with a thick Pledgit of dry Lint for the present, to stay the Bleeding. The Day after, coming to examine the Orifice with my Probe, I perceiv'd the lower Edge of the *Costa* bared, either by the Corrosive Quality of the Matter, or the Pipe rubbing against the same, and which I was therefore forced to make Way to, and to dress with a small Dossil ty'd round the Middle, moisten'd with the *Tincture* of *Myrrh* and a little *Mel. Rosar.* by which the Work, which I thought now as good as finish'd, was hereby protracted for Five or Six Weeks longer; at the End of which, a small Shiver coming away, the dry Lint compleated the Cure with a firm *Cicatrix*; the Patient being alive at the Writing hereof, a Woman grown, yet subject to a *Dyspnœa*, and a Cough, especially if she stays here in Town.

From these two Histories, I think, Gentlemen, we may fairly deduce the following Inferences by way of *Corollary*.

1. That Ulcers of the *Lungs* indefinitely, or without distinction, are not incurable; for in both these, as well as others of the like kind occurring daily in Practice, 'tis evident these Parts were ulcerated. The Case indeed is full of Danger in either way of the Abscess breaking; for, if gather-

Ulcers of  
the Lungs  
distinguish'd.

ing more in the inward Substance or Body of the Lungs, it bursteth suddenly into the large Branches of the *Trachea*, or into the *Bronchus*, as happens often in the Distemper of this Part call'd the *Vomica*, the Patient may be instantly suffocated; as on the other, Death may be as certain, tho' in the more lingering way of the *Phthisis*; I mean where the Abscess is formed nearer to the outward Surface of the same Parts, and breaking through their investing Membrane, falls down upon the *Diaphragm*, where if Nature is not strong enough to make a Way for venting the said Matter externally, as in the foregoing Cases, and other *Empiema*'s, it must communicate its Taint, and raising a *putrid Hætic Fever*, end in a *Marasmus*: Though even here we want not Instances of her Conservatory Care for the Animal, licking up as it were this fluctuating Matter back again, and discharging it by what Physicians call *Anacatharsis*, or Expectoration, or imbibing the same by the Mouths of the Blood-vessels, and unloading it into the *Pelvis* of the Kidney, to be conveyed thence with the Urine into the Bladder, as I was once a Witness of.

2. That it behoves us to difference this *Abscess* and the aforesaid *Vomica*, which is a Collection of Matter envelop'd in a *Cystis*, of several Months, some Authors say Years, standing, without Cough or Fever; where being gradually congested, it at length breaks through its Bag into the Passage of the Wind-Pipe unawares to the Patient, who is often thereby strangled as it were in a Moment; which if he has the good Hap to escape, the Matter being thus empty'd, the Patient oftentimes recovers.

The most remarkable of this kind that I have met with, was very lately in Mr. *Page*, a Brewer at *Bow*, who in one Night's time, upon the bursting



ing of the *Cystis*, or Bag containing it, spit up above a Quart of *Pur*, so fœtid, that it was exceeding troublesome to bear the Chamber, tho' but for a few Minutes: This Discharge continued for many Days, much the same for Quantity as well as Stench and Putrifaction, obliging him to keep upright, and almost incessantly pumping as it were, Night and Day, with little or no Rest, under the most imminent Danger; as Dr. *Hulse*, who was call'd into Consultation with me can testify; yet notwithstanding the most formidable Symptoms, by the Help of *Oily Draughts and Eclegma's*, expectorating Mixtures, with *Oxymel, Sperma Ceti Emulsions, Pectoral Aposems, Sarsa and China Decoctions, Solutions of the Balsam of Tolu in Vitell. Ov. and lastly the plentiful use of Ass's Milk*, the Discharge at length ceasing, he has surmounted the Disease, appearing again abroad to the Astonishment of his Acquaintance, as also his Physicians.

But our *Abscess* is a very acute Disease of the *Inflammatory Kind*, attended with a *Fever, a hard Pulse, dry Cough, high Colour in the Cheeks*, and great *Straightness of the Pracordia*; or indeed it may be called, what in Reality it is, a *Phlegmon* of the *Lungs and Pleura*, which, if not taken off in a Week or 10 Days time, by repeated and large Bleeding, or the Lungs freed therefrom in a plentiful and easy Expectoration, an Abscess as in other Parts, is formed, which sometimes bursting, falls into the Cavity of the Chest, as we have above described, and raiseth a Tumour on the outside, whereby *Nature*, solicitous as well for the Preservation of the *Individuum*, as at other times of the *Species*, finds away for an Escape.

*Hippocrates* has limited this Matter to 14 Days, in this Aphorism of his, *Qui pleuritici, facti, non repur-*

*repurgantur superne in quatuordecem diebus, his in suppurationem convertitur.* But this I think will scarce hold absolutely with us; much less his 40 Days in the following, *Qui ex pleuritide suppurati sunt, si intra quadraginta Dies, ex quo ruptio fuerit facta, repurgentur superne, liberantur; si vero minus, ad tabem transeunt.*

To countenance this *Aphorism*, as dwelling on the Infallibility thereof, Dr. R. Morton has dress'd up a formal Tale in his Treatise *de Phthisi*, of a peripneumonic Case in a young Lad, where he depended so much on this *Dies quadagesimus*, that he ordered an *Emetic Mixture* of *Oxymel* to be got ready against the time appointed; and I think for the better Gloss to the Story, he should have been in the way himself; however it seems he came in the nick of time, and giving it by spoonfuls, brought up a large Quantity of Matter, which well nigh strangled the Patient, who notwithstanding was thus, as it were miraculously *ex Orci faucibus ereptus*.

Upon this *Aphorism* our ingenious *Lister* thus comments:

*Hujus Transitionis ratio apud nos, quod scio, rarissima est; nempe istæ suppurationes diuturnæ ex morbolaterali, si vomica non fuerint, at valde frequentes fuerunt in Græcia.* So that altho' with this Gentleman I can say, *Hippocrati fidem do, cum de iis mentionem fecerit, haud ita tamen Mortono, quia raro aut nunquam evenere nobiscum.*

Dr. Morton its plain was too much wedded to *Hypothesis*, to give a just or faithful Register of Physick, an Instance sufficient of this, we have in that Opinion he had taken up of a *venenum spiritibus implicitum*, by which he was led into the most pernicious Errour of exhibiting the hottest and most fiery *Alexipharmics*, such as the *Theriaca Mithridat. Electuarium ex Ovo Rad. Serpentar.* and the

the like in the Inflammatory Fevers, which oftentimes requir'd a more temperate, if not a cooling *Regimen*, and doing much more Mischiefe, doubtless by the extreme *hot*, than *Sydenham* by the *cold* one: The like Mistakes he must inevitably run into through his beloved Fondness of the *Bark*, which he had carried to that length, that laying aside *Alexipharmics*, or *Diaphoretics*, of all Kinds how opposite soever the genius of the *Fever* might be thereto, yet if there appear'd as he expresseth himself, *velut umbra Remissionis*, the *Bark* was thrown in, contrary to the daily Observations of Mischiefs sometimes thence arising, before the signs of Concoction in the Urine, and the irreparable hazard of many Lives destroy'd thereby; notwithstanding his Collection of Cases, which he has drawn up to justify a Practice condemn'd by almost the whole Faculty, but in general the most Learned and Experienc'd of the present Age.

So strangely overseen are sometimes Learned Men, to abuse even the best of Medicines for the sake of an *Hypothesis*, of which I have thought fit, Gentlemen to give you this Intimation, that others by the Example of so great a Man, may not be lead into a mistake of that important Consequence to the Lives of our Fellow Citizens.

3. We are to distinguish between *Ulcers* of the Lungs arising suddenly from an *Acute* Inflammatory Disorder in the Blood as aforesaid, turning to *Apostemations*, which being discharg'd in the manner we have been Discoursing, are sometimes cured, and those appearing in the way of Congestion after a *Chronical* Illness, as the *Scurvy*, *Kings Evil*, also the drying up of old Sores, &c. Whence the *Secondary* or *Symptomatical* Consumption of the Lungs ensues; Tubercles being first of all formed therein, which sooner or later according



ing to the way of the Patients Living, and the Disposition of the Humours thereunto, Inflammation and turn to Matter; whence their vesicular Substance being further corroded, *Ulcers* are here produced, and Matter truly *purulent* Spit up, which happens generally in the last Stage of a *pulmonary Phthisis*, and for the most part bidding a Defiance to our Art, as well through the continual Motion of the Parts, as the Impossibility of a Medicament, either *Deterfrue*, *Sarcotic* or *Epulotic*, coming at the same with that full Energy or Force, as to others within the outward reach thereof; but now proceeding.

We have already observ'd to you, that the *Anus* is very often the Seat of these *Fistulae* and *sinuous Ulcers*, of which having given you an Example or too, we shall hasten to those complicate with *Varices*.

**Hist. 74.** A Gentleman middle Aged, subject to the *Hemorrhoids*, but otherwise of a good Habit of Body, coming off a Journey, in which he had heat and bruised these Parts, began to complain of great Pain and throbbing on his Buttock, some distance from the *Anus*, which he neglecting, either by Bleeding, *Anodyne* or discutient Applications, Temperance and lying by, to avert the Fluxion, but Drinking as usual, and walking about as long as he was able, after a Weeks time sent for me; who upon Examination, found a great hardness upon the Muscles of the Buttock, with an Inflammation stretching towards the *Anus*, Matter, tho' deep, seeming to fluctuate: Wherefore to encourage the Suppuration, there being now no other way of helping him, I order'd the *Cataplasm* of Figs, and Lilly Roots boyl'd in Milk, intending the next Day to have open'd it by *Caustic*: But asking my Opinion of the Nature of the Malady, and

receiving Answer that it would prove *Fistulous*, he could by no means believe that, he said, because it was so far off the Fundament: However the Poultrice was apply'd, and by the next Morning the Matter had burst through: Upon which he sent me Word I need not trouble my self, for his swelling was no more than a common *Boil*, and being broke, he was perfectly easy; nothing doubting but a *Salve* they had in the House would finish the Cure.

I was no ways concern'd at this Message, as little questioning but he would find himself mistaken; for tho' the body of the Tumour lay somewhat distant from the *Anus*, yet the Inflammation extending up to the same, it was very suspicious that the Matter passed from within the *Intestine* first of all, there being so great Inflammation upon the Neck of the Bladder also by consent with the same, in that for some Days past he was in extreme Misery, being under a continual *Tenesmus* of this Part, as well as of the Fundament, and scarce able to render a spoonful of Water but in great Pain; for easing him wherein I had the Night before directed him as follows.

R $\acute{x}$ . Pulv. Ocul. Canc. Simpl. Sal. Prunel. Sacchar. alb.  $\bar{a}$  3i. m. f. pulvis in tres Chartulas dividendus. quarum unam Solve in Haustulo Emulsionis Sequentis.  $\bar{\text{O}}$  repetatur quartaquaque hora.

R $\acute{x}$ . Sem. Luctuca  $\bar{\text{O}}$  Papav. alb.  $\bar{a}$  3ss. Amygd. d. excort. no. vij. Contusis Affunde aq. Hord. [in qua 3ss. Gum. Arabic. fuerit soluta] 3jss  $\bar{\text{O}}$  Colatura adde Aq. Cinnamom. Hord. Syr. De Alb.  $\bar{a}$  3j. M.

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An Emollient Clyster was likewise thrown up to procure a Stool, which he had not had for some Days past.

But these Symptoms vanishing upon the Discharge of the Matter, he concluded himself out of all danger: Till having try'd his *Family Salve* for some Weeks, and the Matter still continuing, an old Woman was consulted, who Tent'd the Orifice, and that way promised to make a Cure in a short Time, altho' with as little Success.

When several Months had thus passed, he threw out the Tent, and contented himself with his former Salve on the outside like a Plaister, till by the Discharge and trouble of Dressing being tired, and seeing no end of the Work this way, he came one Morning to my House, and acknowledging his Simplicity in entertaining so wrong a Notion of his Case, desir'd my Assistance.

Upon a View of the Disease, I perceiv'd that by length of time, and the drying Waters in which the Tents had been dipp'd, not only the outward Orifice, but through its whole Passage, from the Buttock towards the *Anus*, the *Sinus* which ran that way, was now grown *Callous* or Pipeye, so that before I could it lay open, with any Advantage, there was a necessity of wasting the *Callosity*: In order to which, having prepar'd his Body for the Work, I came one Evening, and introduced a *Troch* of *Minium*, or rather a Tent of the same, of sufficient length and thickness, with a Digestive and adhesive Plaister on the outside, also the T-Bandage for security thereof.

The next Morning I perceiv'd him somewhat Feverish, Thirsty, and through the Pain it had given him, he had been all Night restless, altho' now much abated: However, to take off the Fluxion, I let him Blood, threw up an Emollient Clyster, and di-



directed an *Emulsion*, to abate the Inflammation, and temperate the heat of his Blood, like that I had formerly prescribed: And renewing the Digestive, I perceiv'd the Tent surrounded with a thick *Slough* like a Plug, which after few Days thrust out together therewith.

The *Callosity* thus removed, and the *Ulcer* digested with *Basilicon* on a Tent of Lint rolled over with the *Precipitate*, I made a farther Enquiry with my Probe, and having satisfy'd my self in its Course, when I had somewhat thined that Part, by the *Gentian Root*, with a strong shank'd Probe Scissars I cut through the *Sinus*, which yet was very thick, to the Verge of the *Anus*, filling up the Incision, on account of the *Hemorrhage*, with dry Dossils, a *Digestive* on the outside, and the *Bandage* as at first, confining him now to his Bed.

This Wound being likewise digested with the Dossils, made up softer, dip'd in the warm *Lini-ment* of *Arceus*, and in a hopeful Forwardness of *Incarning*, there being still a great supply of Matter, I was confirm'd in the Suspicion I had from the first entertain'd, that the Source of this Mischief was still out of sight, and that the Matter originally formed in the Coats of the Gut, by falling down lower on the Muscles of the Buttocks, had rais'd the *Abscess*: For satisfying my self wherein, the *Ulcer* as I said but now, healing daily towards the Fundament, I pass'd my Probe up whence the Matter came down between the Tunics of the Intestine, whilst my Fore-finger of the other Hand was introduced by the *Anus*, as high up as I could reach, with which I could plainly feel the Probe on the other side; so that having incarn'd the Wound upon the Buttock, and fitted it for a Pledgit of dry Lint, in order to Cicatrise, I propos'd the Dila-  
ting

ing of this *Sinus*, by the *Intestine*, or that otherwise he must content himself tho' not with an Issue on his Buttock as formerly, yet with a constant Drein by the side of his Fundament, which I gave him a few Days to consider of, whilst we were healing of the other Wound.

He was indeed very desirous of being well, but difficultly perswaded to another Cutting, preferring the *Ligature*, which he had been inform'd would supply the Place: But when I told him that Method was much more tedious, and full out as painful, as being liable to worse Accidents from the Fluxion, and that before I could pierce the *Intestine*, and draw forth a crooked Probe with the said *Ligature*, in order to make the Stricture by the Tye, I might in the other way have the Work dispatch'd at once: He acquiesced, and the Day following, provided for the Work, I enter'd the one Shank of my Scissars by the Orifice, with my Finger guiding the other in *Ano*, and having got up as high as it would reach, I drew forth my Finger, and at one Stroke laid open the Cavity: But perceiving as I was about the Work, the Scissars giving way upon their first Gripe, at the Verge of the *Anus*, I was fearful I had not reach'd the extent of the *Sinus*: Wherefore passing up again my Finger, I felt a forked Partition, letting in the top thereof like the Finger of a Glove: Upon which, unknown to my Patient, who thought I was forcing in my Dressing, I thrust up a Scoop, I had by me, made for the Work, almost like one of those the Cheese-mongers make use of for their Tasters, with which, distending the *Intestine* on the opposite Side, I strait re-enter'd my Scissars, and snipp'd open that Partition to the upper end thereof, then clapping in my dry Dossils hard roll'd up, to prevent the re-union of the  
fresh

fresh divided Lips, with a Compress of Tow on the outside, and the customary Bandage, I dress'd up, directing an *Anodyne Draught*, ex *Aq. Cinnamonom. Hord.* ʒjss. *Syr. de Meconio* ʒss. *Conf. Frac. s. m.* ʒj. not only to quiet the Pain, but to prevent his too suddenly going to Stool, which his Body was very prone to; also the *Decoct. alb.* for his Drink upon the same Occasion.

The next Day, extracting the Dossils, I perceiv'd a fair Wound, into which once more gently passing my Finger, oil'd for its easier Entrance, I found that Work compleat; when dipping a Probe Tent of suitable Proportion to the Wound, in the warm *Liniment*, I introduced it with a Pledgit and Bolster, and dress'd up again: After which being well digested, to prevent any spongy Flesh, I continued the same Dressing roll'd in the *Precipitate*, gradually shortening the Tent, leaving always one ready armed, with Instructions to his Wife how to apply it, in Case of his going to Stool in my Absence: And thus, in less than a Month, finish'd his Cure; during the greatest Part of which, as well as for some Time after, I advis'd him to an *Aq. Calcis medicated* with the *Woods*, that might correct the *acrid, scorbutic Salts* in his Blood, and prevent any Mischief thence arising, together with the shutting up of his *Fistula*; and in some measure to compensate for the same, a *Fontanel* was placed in his Leg, which he still continues, as he surmises, with great Advantage to his Health.

But it often happens that the *Fistula*, more especially of this Part, are so perplex'd in their *Sinus's*, or so intricately winding like so many *Burrows* under Ground, that having laid open one, there are others still discoverable, which discourage the Patient, and render the Cure difficult: Of which

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Kind, tho' not to the Degree of some about which I have been consulted, was the following.

HIST. 75. A Carpenter in my Neighbourhood, of a corpulent or full Habit, having for some Days been ill of a Fever under the Care of that worthy good Man Dr. Brooks, by a Translation of the Febrile Matter, a Tumour was raised on his Buttock, in the same Place as the foregoing, at some Distance from the *Anus*; which inflaming, soon after suppurated, and was open'd by *Caustic*.

The ill Habit of his Body and the Site of the Tumour bordering so near the Fundament, by an Induration reaching the same, and lying deep under the Flesh, gave me Reason to suspect a *Sinuuous Ulcer*, if not an incurable *Fistula*, might happen to be left behind; and therefore I was the more shy in giving great Encouragement, or promising a Cure.

Having let out a large Quantity of Matter well enough concocted, I made a slight Enquiry by the Probe, and found a deep Cavity under the *Glutæus*, running downwards on the back Part of the Thigh, with another transverse to the *Anus*, both taking up almost the whole Length of my Probe; which overlooking for the present, whilst the *Eschar* was digesting off, I endeavour'd to mundify the Ulcer, by strewing on a good Quantity of the *Precipitate* upon the loose Flesh underneath, mixing the same also with my *Digestive*, as well as by Compression and such Bandage as the Part was capable of, to forward what I could the Union of the *Sinuosity*: But finding all Endeavours this Way ineffectual, when the Tumour was now subsided, I made a stricter Search than before, and entering the Probe into the *Sinus* that ran directly downwards, found it so thick, that great Part of the *Glutæus externus*, especially the lower Part, must necessarily be divided, this being the Cavity in which the Matter seemed

seemed principally to be lodg'd, and whence, by pressing upwards on the *Extensor* Muscle of the Thigh towards the *Ulcer*, great Quantity of Matter daily issued forth: Upon which Account, there being nothing besides the Thickness of the Part to discourage the Work, I pass'd in a Director, preferring the same now to the Scissars, and bearing it with one Hand hard against the Outside, with a Razor in the other cut into the *Sulcus*, dilating thus the whole Length, and discharging a large Quantity of Matter nested therein.

After which I fill'd up the large Wound with Dossils of fine Tow, laying over a Wad of the same, moisten'd in *Oxycrate*, and sprinkled thick with *Farina*, and a Bandage reaching round the Body as well as the Thigh, to retain the same, and secure the *Hæmorrhage*, which however was inconsiderable, requiring no other Styptic than the dry Dressings.

The next Day taking out the same, I order'd equal Parts of the yellow *Basilicon* and *Linimentum Arcai*, to be melted down in a *Panniken*, into which [having first armed some of the like Dossils thin with the *Linim. per se*, to prevent their imbibing more of the melted Mixture than Occasion call'd for, as they will when dipp'd in dry,] I lightly laid them, and dress'd up with a large Pledgit of the same Digestive on the Outside, and the Bandage as the Day before: And so continued for Three or Four Days, till the Wound being digested, by the Help of the *Precipitate*, I deterged, soon after *incarning* by lightly strewing the *Sarcotic* Powders of *Aloes* and *Sarcocol.* instead of the said *Precipitate*, till the large and gaping *Ulcer* was ready for dry Lint, which was the Customary *Epulotic* I made use of, in those attended with a moist *Inter-*  
F 2 *peries,*

*peries*, or where the Flesh is over lax and apt to be luxuriant.

Being near upon *Cicatrised*, my next Enquiry was into the transverse *Sinus* towards the *Anus*, whence most of the Matter now seemed to flow, and from whence, tho' I had made a bold Stroke through Part of the Buttock, and somewhat taken off my Patient's Courage, I still expected to encounter a further Difficulty. I perceiv'd the *Sinuosity* almost as thick, but not half the Length, to reach the *Anus*; however, being got thus far, I had great Cause to suspect its Penetration higher up in the *Intestine*, if not some Meandrous Winding towards the *Sacrum*. I would now gladly have laid open the *Sinus* towards the *Anus*, but he desired farther Time, being intimidated with the Uncertainty, but that there might be still more cutting when we were got up to the Fundament. Wherefore having *cicatrised* the old *Ulcer* within a narrow Compass, I told him he must either content himself with a *Fistula*, or give way to the farther Dilatation: As it was, I farther acquainted him, that it would be likely to incommode him in his Seat, and admit a *Fistula* should after all ensue, it were better to dispense with such as was unavoidable, that was attended with the least Discharge and the fewest Inconveniencies; whereas this at present seem'd likely in a short Time to drein him away: He now again ask'd me if I could warrant his Cure by another Slash, if he should submit; I reply'd it was not in my Power to make an absolute *Prognostic*, at least till this Cavity was laid open. Upon which he left me, and in the Interim some Pretender had got into his good Opinion, with a Promise of curing him by *Injection* in a Week or 10 Days Time at farthest: Which having experienced for a Month without Success, but growing rather



rather abundantly worfe, being now in very great Pain, he again begg'd I would come to him: Where examining the old *Sinus*, I perceiv'd the same, through the drying Liquors that had been thrown in, growing hard and exceeding tender, inflamed round about and threatening some new *Abscess* above.

In order to his Relief, by again hastening *Digestion*, I introduced a small Tent, such as the now contracted Orifice would admit, dipp'd in the warm *Liniment*, with a Pledgit of *Basilicon* on the Outside, and an *Anodine Cataplasme* on the inflamed Parts, *ex Mica Panis in Lacte cum Vitel. Ov. & particulo Croci*: Upon which after the second Application, the Matter that seem'd to threaten a fresh Apostemation, finding its usual Vent, came down in great Quantity and discharg'd as formerly, by which he grew easy (as when he left me;) and perceiving a Necessity of somewhat farther to be done, I took him one Morning in a Disposition for the Work, and having thinn'd the *Sinus* what I could by the *Sponge Tent*, at least made better Way, I enter'd my Probe Scissars, and instantly divided close to the *Anus*; then searching with my Probe on the Outside and Finger in *Ano*, I discover'd the Communication with the Gut the whole Length of my said Finger: So that not expecting his Compliance at another Time, I was resolv'd not to lose this, and immediately passing my Scoop in the Place of my Finger, I enter'd the Button End by the *Sinus*, and the other into the Furrow of my Director, when with a second Gripe I divided this *Sinus* also, with great Expectation that I had now laid a Groundwork for his Cure. The cross Incision bleeding moderately all this while, I fill'd up with dry Dossils, then rolling up more Lint, pass'd the same close up into the Wound made on

the *Sphincter*, securing the Dressings with a Bolster of Tow and the usual Bandage.

The Day following, as well the transverse Cut to the *Anus*, as the direct one up the *Intestine*, were dress'd with the warm *Liniment*, after few Days mixing the same with *Precipitate*, and thrusting up a Probe Tent by the Side of the *Intestine*, first arm'd, then roll'd therein, proceeding after this manner till the Wound on the Outside was near *incarn'd*, and that within almost heal'd up, both being now dress'd up dry: Thus when we thought all safe, it happen'd that taking off the Dressings, I observ'd a greater Quantity of Matter than had flow'd for several Days past, and examining more narrowly first of all into the *Anus*, whence I was jealous the said Matter came down, I could find nothing amiss there; but pressing down with my Probe upon the newly incarn'd Wound on the cross Incision, to my very great Concern, I perceiv'd another *Sinus* running very deep upwards, where, by the Inflammation, there seem'd a new *Abscess* forming when I was last called in, of which I took no Notice till the rest was healed up, when I propos'd a Consultation with his Physician and Mr. *Blundell*, in which it was concluded, that considering his ill Habit of Body, (though in Truth Necessity determin'd the Case) being highly *Scorbutic* and withal *Asthmatic*, it might be of Service to retain this Opening as an *Issue*, which was done accordingly; and yet now, many Years past, continues with very little Trouble: However, it gave a Handle, I cannot say whether to an inconsiderate or ungrateful Temper, when he paid me Twenty Guineas, as he said, with more Reluctancy than he would have given Fifty, had I made a Cure: But such, Gentlemen, you well know, is the hard Fate

Fate of Surgery, and in the Words of an old Rhimer,

*Too oft the Artist takes the greatest Pains,  
Where he's rewarded with the lesser Gains.*

During the whole Course of my Attendance, he was kept strictly to a *Guajac Diet*, or an *Aq. Calcis* medicated therewith, and the other *Woods*, declining *Purgation* unless a little *Calomel*. at sometimes, with Lenients afterwards, lest the Bent of the Humours should be that way invited, whence our Endeavours were to avert them.

### Of the Varicous Ulcer.

The next we shall speak to is the *Varicous Ulcer*. <sup>Ulcer</sup>  
Now an *Ulcer* you must know is so term'd, when <sup>Varic</sup>  
lying close upon or adjoining to a *Varix*, or a knotted turgid Vein.

These, by the continued Supply of a gross feculent Blood, or lying in the Way of the same, hinder the kindly *Digestion* of the *Ulcer*, or being digested, the *Cicatrising* thereof: Or, finally, being dry'd up, which is most commonly with some Scab or crusty Covering, expose them to break out again, by reason of some fresh Eruption from the Vein, or by rubbing off the Scab to a new Fluxion of Humours, with great Pain attending.

The Seat of the *Varices* are most commonly the Thighs, but more especially the Legs, also the Bottom of the Belly, particularly in pregnant Women, through the Weight and Distention of the *Uterus* at such Times compressing the Trunk of the *Vena Cava*, whence the Return of the Blood being slacken'd, and its progressive Motion render'd still more difficult by the Position of these



Parts in the standing or sitting Postures, it thickens in certain Parts of the Vessel, into a *Grumus*, distending the Sides thereof to make Way for other the thinner Parts to pass by, that an entire Stagnation may be prevented.

These *Varices* are sometimes enlarged to a great degree, as we took Notice when speaking of the *Aneurisma*, and are often observed to lie naked in the *Ulcer*, whereby the Corrosive Quality of the influent Humour, by the Heat and Acrimony of the Blood itself, or that of some *deterfive* Medicine made Use of, together with the Rottenness of the Coats of the Vessels themselves, by lying long exposed, they often suddenly burst, and great Quantity of the Mass, together with the Spirits, are exhausted in the Patient's Sleep, or sometimes waking, before the Surgeon is at Hand to hinder the same.

The *Anus*, or Fundament, as also before remark'd, by reason of its Situation, is very much incident to these *Varices*, which swelling and becoming painful, break forth and are named *Hæmorrhoides apertæ seu sanguinantes*, the *bleeding Piles*, as when they swell but do not shed their Contents, they are termed *Cæcæ*, or *blind ones*; tho' this last Name is given them by some when they lie conceal'd up high within, of which we have sufficiently treated in another Discourse.

The *Testes*, in like manner with the *Spermatic Vessels*, are subject to the like Malady for the same Reason, their dependent Posture, as we acquainted you in our Discourse of the *Varicocele* and *Circocele* among the *Hernia*: But speaking now to the Cure, of which this *Varicous Ulcer* admits either one that is *Real*, but seldom or never practised among us, or *Palliative*, which is the usual,

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The first of these is perform'd by opening the Skin and laying the Vessel bare, after which the same being taken up, and a Ligature made both above and below, the *Varix* or knotted Vessel as was perform'd in the *Aneurism*, is taken out, the Ligature being left to digest off, and the Wound afterwards healed as others of the Skin and Flesh underneath.

*Hildanus* tells us in his 4th Cent. and 85th Obs. of a very considerable Cure of this Kind, where the Ulcer was most inveterate, and accompany'd with a prodigious *Varix* of a Span long, thick as the Wrist, and divaricating from the Ham, downwards of the Leg, which having separated from the Skin and Flesh, and ty'd up the Vessel, he cut out and healed the Ulcer.

*Severinus* was also noted for these and the like desperate Operations, which procur'd him however the Name of *Severinus Severus*, or the Cruel Surgeon.

But even this Operation, tho' much less hazardous than the Deligation of the Artery, will not go down with our People, who are ready to run from us at the naming the laying open or cutting out the *Varix*, and rest content therefore with a palliative Cure, that is, digesting the Sore with *Lenients*, and repressing the Growth of the *Varices* by restraining Applications under a strict Bandage; endeavouring to dry up the same by some gentle *Epulotic*, such as our *Cerate de Lap. Calam. Ungt. Tutie Diapomphol.* and the like.

It is this Ulcer indeed that has occasioned so much Work for the *strait Stocking-Maker*, to whom the Patient is often more obliged, than to the Surgeon, who without this Help can do very little in the Cure: In enterprising whereof, as I said but now, having digested the Ulcer with *Basilicon*, ei-  
by

ther by it self or mixt with the *Precipitate*, as the Condition thereof shall require, you are, as we farther took Notice, to apply all round, some repelling, drying and restringent Application, that may intercept the Flux of Humours, and repress the *Varix*, of which Kind are the *Ol. Ros. vel Mirtil. cum Aceto Conquassat.* Compresses likewise press'd out of the Juices of the following Plants, viz. *Fol. Plantag. Burs. Pastor. Millefol. &c.* or for Want of these the common *Oxycrate* may supply the Place.

The *Ulcer* being digested, and the Patient easy, I commonly direct a Pledgit of *Diapompholigos*, which agrees usually very well with these *Ulcers* of the depending Parts, or my *Cerate* abovemention'd. When encompassing the Limb all round with a Defensive Emplaster *ex Diapalma Bol. ver. Sang. Drac. cum Ol. Ros. & Acet. Vin. alb. q. s.* I cut a Hole therein for the easier dressing of the *Ulcer*; after which I give Direction that the Limb is well fitted with the *strait Stocking*, which I moderately lace up from the Toes to the Gartering below Knee, as the Condition of the Sore, more or less painful, will allow; by which the Cure of these *Ulcers* is much facilitated, I mean the *palliative*, holding commonly during the wearing of the *laced Stocking*, which many [and glad they can compound so] are forced to continue all their Life-time: Besides a regular Discipline in the *Non-Nat.* particularly their *Meat* and *Drink*, as well as *Exercise*: Bleeding also and lenient Purgation being requir'd between whiles, to avert the Fluxion and empty the *Cachochymy*, not neglecting such *Alteratives* as may temper the Fervour of the Blood, and soften the acrid or saline Serum thereof.

HIST. 76. A Woman of a thin Habit, or a hot and dry Constitution, having been for a long Time afflicted with these *Varices* on both her Legs, a little above



above the inner Ankle, the usual Place of their most painful Residence, at length, for Want of her accustomed Evacuation by *Venesection*, and proper Restrictives to suppress the same, an Inflammation falling down, the Skin first fretting, an *Ulcer* was formed presently after, and the Humour being very Corrosive, spread round about, eating farther in, which being treated by ill Surgery, a spongy Flesh over-spread the same the Compass of a Half Crown, and the Thickness of a Finger, making it look so frightful, that by one she had consulted, it had been deem'd *Cancerous*.

Under this Apprehension she sent for me, when examining the Nature of the *Fungus*, mild and pappy, a meer Effect of the Blood redundant and luxuriant in the Part, ouzing out of the *Varicous* Vessel close adjoining, where, by sporting Nature, it was form'd into this Excrecence: Enquiring farthermore into other Parts of the Leg, I perceiv'd, from the Gartering downwards, the Veins all *Varicous*: So that, as I had no other Reason, I gave her great Encouragement, at least of a *palliative* Cure, if she would submit to a regular Government or proper Discipline. She then shew'd me her other Leg, where, near the same Place, was also a very painful *Ulcer*, with a *Varix* lying exposed therein, and threatening a Rupture, also a great Inflammation round about.

This being incapable either of the *Precipitate* or the common *Digestive*, through its exquisite Tenderness, with a Feather dipp'd in the warm *Lini-ment*, I lightly went over it, laying down a soft Pledgit arm'd with *Diapompholigos*, and my *Cerate* Plaisterwise over that, then embrocating all round with *Ungt. Sambuc.* rolled the Limb gently as she could suffer me, and confin'd her to her Couch. On the *Ulcer* with *Hypersarcosis*, I strow'd the *Precipitate*

*precipitate* pretty thick, laying a Pledgit of the *Digestive* thin spread over that to hasten off the *Slough*, Compress and Bandage, as the Part would allow. After this I let her Blood, to take from the plenitude of the Vessels, and refrigerate the rest of the Mass, prescribing a moistening and cooling Diet, with *Emulsions Ex Amygd. d. Sem. iv. frigidis Maj.* Barly and Oatmeal Grewels, now and then a little Meat that was fresh and easy of Digestion, but nothing *Season'd, Pickled, Powder'd, Fry'd* or *Bak'd*, nor yet *strong Liquors* of any sort, that might heat or inflame the Humours.

After few Days proceeding in this Manner, I perceived the *Ulcer* in which the Vein lay bare, still Crude and indigested, with a *Sordes* on each side thereof, which I lightly sprinkled over with *Precipitate*, dipping the armed Pledgit in a little of the melted *Liniment*, and applying thereupon: But finding the *Precipitate* not powerful enough to gain upon the Spongy *Ulcer* of the other Leg, by reason of its continual Bleeding, and washing off the same, I was put upon contriving some Remedy of more Efficacy, but such as should work with as little Pain, least I should not be admitted to renew it as there was or might happen to be occasion, or as necessity call'd for the same.

The *Pulv. Angelicus* I knew would make a thicker *Slough*; but was too painful for a pusillanimous Patient, as I had now to deal with: Upon which Consideration I prefer'd the Powder of *Calx viva*, strowing it over the *Fungus*, with a Pledgit of dry Lint, by which I observ'd much less Blood shed between the times of Dressing: But neither hereby could I make the Progress I expected, so prone was the spongy Flesh again to pullulate underneath the *Eschar*. I then try'd a touch of the *Butirum Antimonij*,

*Antimonii*, which immediately induced a Silver colour'd Slough, but was too painful to reiterate. So that dipping a slip of Cloth in a Solution of *Vitriol.* as we mention'd when discoursing of the Ulcer with *Hypersarcosis*, I scraped the same when dry, into fine sky colour'd Lint, and laying a Pledgit thereof on the fungous Ulcer, thereby rather suppress the farther growth, than gain'd much Ground. Wherefore examining round about the Basis with my Probe, I perceiv'd this Excrecence, like that around some *Fontanels* with a moist *Intemperies*, was more than twice the Circumference of the Ulcer underneath, projecting over the sound Parts, and lying close thereon, yet capable of being raised up by the Instrument, thrust under. When I had made this Remark, I dress'd up again as before with the prepar'd Lint, the other Ulcer still remaining very painful and not suffering the *Precipitate*, how lightly soever, to be strow'd: I contented my self with mixing a little thereof with the *Diapomph.* and having besmear'd the Bottom and Edges with a Feather dipp'd in the *Liniment*, laid it on in hopes thereby of digesting out the *Sordes*, and incarning upon the Blood Vessel, which lying thus expos'd, I endeavour'd to convince her would perplex her Cure, and therefore I would gladly have made a Ligature thereon, and being now perish'd, have digested it away: But she would by no perswasion be brought to hear of that Experiment, at least as yet: And to render her Nights tolerable, had used to take  $\frac{3}{4}$ ss. and sometimes  $\frac{3}{4}$ j. of *Syrupus de Meconio*, going into her Bed, with  $\frac{3}{4}$ ss. of *Elect. Lenit.* every second or third Morning, which gave her a Stool or too and cool'd her Body.

The Day following, I brought with me my Instrument-Maker, to take the compass of the excre-  
cing



cing Flesh at its Basis, having before-hand acquainted him, that I would have a small Iron Plate divided in the middle, each piece or half thereof to be made with a Semicircular Hollow; so that placing the two Plates underneath the *Sarcoma* on each side, they should encompass it all round, and defend the sound Parts from the intended actual Cautery: The Plates being made a little Concave on the underside to humour the make of the Limb.

At the same time I convinc'd my Patient, tho' not without some Difficulty, that her Cure would be thus expedited, nor would the Pain, all things consider'd, be near so durable as that by the *Escharotics*, carrying more of Terror than real Doulour along with it. Approving our Contrivance, she seemingly consented, and taking a piece of thin Past-board for a sort of Model, I instantly with my Scissars hallow'd the 2 insides, and sliding them under the *Fungus*, exactly fitted them to let in the same, then gave them the Workman, who got them ready against the next Day: At which time carrying with me a flat *Cantery*, a little bigger than the said *Fungus*, and encouraging my Patient, I surrounded it with my Plates, whilst an Assistant held them close down with his Fingers, and the Iron being hot, whilst the Leg was held fast by an other, I prest the same close down, shifting it about as well on the Circumference as in the midst, till I was got upon the Plate, and this without a second Iron, or heating my first a second Time: The Patient acknowledging her self more terrify'd by the *Idea* she had form'd thereof, than pain'd by the Operation, choosing rather, if necessity so requir'd, another touch of the same, than the sharp Medicines which had before been ineffectually apply'd. But this Work dispatch'd, and the Plates with-

withdrawn, I dress'd up with a Pledgit thin faced with the *Basilicon Flavum*. and also the other Ankle where the *Ulcer* digested still slowly, and lay foul at the Bottom, discharging little unless a sharp *Ichor*, altho' the Inflammation round about was much abated.

The Day following the Burning, I perceiv'd the Crust stick fast, and the *Fungus* at least level'd with the Skin round about; wherefore I continu'd the same Dressing; and as the *Eschar* loosen'd or digested off, consum'd the remainder with the *Precipit.* thick strow'd on, together with a touch of the *Vitriol Stone* round about the Edge.

The *Hyperfarcosis* thus removed, I observed several small *Varices* round about, which seem'd to have given rise to the *Ulcer*, and which were after kept under, healing up by the help of a laced Stocking now put on; and a Pledgit of dry Lint; whilst the less frightful but more fretful one upon the other Leg, continu'd still painful and would not Digest, till an Accident happen'd I was not much concern'd at; for the Coats of the Vessel lying so long expos'd, grew rotten, and in the Night the Blood gush'd forth in large quantity; so that perceiving what had happened, under the greatest Consternation, she call'd me up; where I found many bloody Cloaths by the Bed-side, and thrusting out her Leg, I discover'd the Blood running down a-pace; upon which taking off the Dressings, and cleaning away the *Grumus*, I got a fair View of the ruptur'd *Varix*, and whilst a Servant held a thick Pledgit of dry Lint thereon to restrain the Effusion, I prepar'd fresh Dressings and a clean Roller, with what else I had occasion for: Then taking a small Button of Lint dipp'd first in *Oxyerate*, and after in the Powder of *Colcothar*, I clap'd it down close in the place of the Lint aforesaid, with

with Compress exprest and sprinkled with *Farina*, rolling the Limb up again from the Foot to the Knee, intending hereby to destroy the Vessel, at least so much thereof as lay in the way, and was a hindrance to our Work of healing.

Two Days after I took of the Dressings, and found a Crust induced as I expected from the *Cathartic*, over which I apply'd my *Digestive*, and so continued Dressing for 3 or 4 Days, when a second Alarm came of a fresh Flux, which I restrain'd as before, without any further disturbance: The *Slough* Digested out together with the *Varix*, by the help of a little warm *Liniment*, there remain'd only to *Cicatrise* the Ulcer, which was soon accomplish'd by the *Ungt. Diapomph.* After this I directed also for this Leg, as I had done before for the other, a *strait Stocking*, which she continued about Six Months after, and then left them off, only Purging and Bleeding as I had given her Orders, and remained after free from any complaint of this Nature for above Twelve Months longer; when, by some accident of a wrench upon her Ankle, her Leg began again to swell and grow painful, and I advised her to have recourse to her strait Stockings, which she has since continued with great Benefit.

### Of Ulcers with Caries.

Of Ulcers  
with Ca-  
ries.

The Ulcer we shall next observe both more troublesome and also tedious oftentimes than the rest, is that complicated with a foul Bone, and thence denominated a *Carious Ulcer*: Which *Caries* is suspected by the *fætid Smell*, especially if the Tent or *Dossil* which was thrust down to the Bottom, comes forth at the next Dressing discolour'd and stinking: As likewise by the Discharge, such as a thin *Ichor*, or Oily  
Sames,



*Sanies, with a Quantity too large for the Proportion of the Ulcer, as well as from the loose or rotten Flesh in the same, the Difficulty of Cicatrizing, and often breaking out afresh.*

These, I say, give Ground to suspect the Bone is foul, more especially if seated among those of the *Tarsus* or *Metatarsus*, as in *Strumous Ulcers*, or upon the Joints in those of long Continuance.

But the Truth or Certainty hereof is gained by the Eye, where the *Cariosity* is exposed to the same; or by Probation, when out of Sight: For hereby in pressing through the spongy Flesh, or entering the *Sinus* leading to the same, you will discover the *Periosteum* eaten off by the Humour, and a Rugosity or Porousness that lets in the End of your Instrument, the outward *Cortex* having been thereby corroded, which hinders its slipping along the same. 'Tis from the Likeness of these Pores to those made in Wood by a little Insect of that Name, that this Sort of *Caries* or Rottenness in these Parts of the Body, is named by some ancient Writers *Teredo*: But as in our Discourse of Wounds, we gave that Appellation, I mean of *Wound*, to the Solution of Unity made in these harder Parts, by any sharp or cutting Instrument; so here also those made by a sharp and corrosive Humour, may, perhaps without a *Solecism*, be called *Ulcers* in the Bones, as well as those in the softer and fleshy Parts.

The Causes of these *Ulcers* are either external or internal: And thus in regard to the former, as we observ'd in Wounds of the Head, the *Cariosity* may be owing to the Negligence or Ignorance of the Surgeon, in not being so careful as he ought, in preserving the naked Bone from the Influence of the Air, at the Time of Dressing; or Dressing up with some greasy Application, as

well as to the virulent and corrosive Nature of the Humour itself attending and eating thereinto: For since we find that Metals and Stones contract a Rust, and moulder when gawl'd by the sharp and penetrating Particles of that Element long Time exposed to the same, no Wonder the softer Texture of these Parts are oftentimes pervaded and thereby corrupted.

The internal Causes are some particular *Dyscrasy* in the Serum of the Blood, or other Juice secreted thence, which having acquir'd an acrid and malign Ferment, or degenerating from their natural State, put on one that is venene or highly corrosive; and which like an *Aq. Fortis* or some *Stygian Liquor*, is not only potent to dissolve the *Flesh*, but to destroy the *Compages* of the *Bones* themselves, and eat into their Substance, as is manifest in some *Strumous* Affects, which we have here in our 2d Section already, and in the *Venereal*, elsewhere observed; but hastening to the Cure:

In the Management of which you are not so directly to regard the outward *Ulcer*, or that in the *Flesh*, as the *Caries*, or *Ulcer* in the Bone underneath; without removing which, you can expect no firm or lasting Superstructure upon this rotten Foundation: However, where the *Flesh* is spongy, as usually at such Times falls out, and lies in your Way, you are first of all to remove the same by some of those Medicaments we formerly proposed for the *Ulcers* with *Hypersarcosis*, till you have made room to come at the rotten Bone, where it can be safely done: Which Point being gain'd, you are to keep the *Ulcer* distended with Dossils of dry Lint, or dipp'd and express'd from the *Tinctura Myrrhae*, lest otherwise through a Neglect hereof, the said *Ulcer* being overgrown again with luxuriant *Flesh*, you find you had created much Pain to the Patient with-

without any Advantage, having the same Task to repeat with your *Catheretic* or *Caustic* Medicines.

But having laid the Bone thus bare, you are to consider the Degree of Rottenness therein, and finding it only discolour'd in its *Cortex* or outward *Lamen*, the *Periosteum* being newly gone, you may probably get the same exfoliated by Means of the dry Dressings, or the Tincture aforesaid: Or, for the quicker Dispatch, with your *Scalprum* [an Instrument for that Purpose invented] you may rase off so much of the discolour'd or tainted *Cortex*, till the Parts underneath appear fresh and ruddy, or of the more natural Complexion, when strewing thereon some desiccative Powders, such as the *Pulv. Rad. Irid. Aristol. Myrr. & Aloes*, you forward a sound Incarnation thereupon.

Again, if the *Caries* be enter'd deeper, or is become porous, and withal white, (which is usually worse than the black and smooth) stronger Remedies are to be used, such, I mean, as the *actual Caутery* or hot Iron, which being daily repeated for some Time, more powerfully dries up the Humidity, and disposeth the rotten Part to scale, beyond all other Remedies whatever.

In the Use of the *Caутery*, these following Directions are however necessary to be observ'd: *First*, That you fit the Cavity of the *Ulcer* with an Iron or Steel *Cannula*, or Pipe, at the Times of using, to defend the Lips and Sides all round from being scorch'd or burnt; which may be taken out and cooled by dipping in Water, upon Occasion. *Secondly*, That in applying the same, you take Care to shun any Nervous or Tendinous Parts therein exposed, for Fear of Convulsion thereby excited: Nor must you apply them at all, according to some, upon the *Cranium* or *Spina Dorsi*, lest the Brain or Spinal Marrow should be thereby inflamed: Yet,



notwithstanding I have frequently used them upon the former, in several Venereal Patients, to dry up a *Caries*, the Effects of *Nodes* seated thereupon, and promote their throwing off, without any ill Consequence attending.

After the Use of the *Cantery*, you may strew on the Powders aforementioned, also the *Pulvis Euphorbii*, a celebrated Medicament of the Antients for these Purposes: Others propose the *Aq. fortis*, or *Ol. Vitriol.* But these I never cared to meddle with, by reason of their exceeding sharp and corroding Property, or the particular Enmity, as we say, they are found to have (notwithstanding the one of them whitening thereof) to these Parts of our Bodies.

When the *Cariosity* is by the Means above prescribed, removed, either by scaling or crumbling, and insensibly mouldering off, as happens at sometimes, the *Ulcer* in the Flesh may then, and not sooner, be suffer'd to *Incarn* and *Critacise*, as in others with lost Substance we have before observed: But be sure you take Notice, that in all these *Desquamations* or *Exfoliation* from the said Parts, you must use no force in drawing away the same, till you find the corrupted Piece thoroughly loosen'd from the Sound, and even then if there be any Angle or Point thereof, shooting underneath, or lying intangled in the Flesh, it behoves you to be careful, that none the least Fragment or Particle be shut in, which would raise afterwards some fresh Disturbance, such as new *Abscess* or *Apostemation*; at the best protract the Cure, and obstruct the Cicatrifying of the *Ulcer*.

Farther, if the *Caries* has seized on the small Bones of the *Carpus* and *Metacarpus*, the *Tarsus* or *Metatarsus*, also those of the Toes and Fingers, as is very common in the *Strumous* Distemper, called the *Evil*, 'tis rare to obtain any Exfoliation here:

For

For having no considerable Cavity, when once they are corrupted, the sharp *Ichor* seizeth upon their whole Substance, so that having waited long in expectation of their throwing off, you will be obliged, either to pinch them to pieces, and extract their broken Fragments, or otherwise content your self in keeping the Bone in Sight, by suppressing the *Fungus*, apt to rise at such Times, with your *Catheretics*, and applying to the said Bone, either your dry Lint, the same exprest from the *Tinct. Myrrh.* or sprinkling on your desiccating Powders, till *Nature* thus assisted, separating the Tainted from the Sound Parts, by loosening the Ligaments that held them down, they rise either in Part or in their whole Substance, and are taken forth, when a *Callus* may happen, tho' I think but seldom, to supply their place, especially due Care being taken by suitable Applications, to deterge and dry up the *Ulcer*, with proper Splints and convenient *Bandage* to support the now enfeebled Joint, and prevent the lodging of any Matter, together with such *Alterative* and *Specific* Remedies, as may have Power to subdue the Seeds of the Original Disease, and prevent its Contagion spreading round about or seizing upon other Parts, as we have before admonished.

But indeed, where any particular Joint, either of the Fingers or Toes, happens to be thus affected, especially in a *Strumous* Patient, the quickest and the surest Method oftentimes, is the taking off such Toe or Finger, and endeavouring to rectify the Juices of the Blood, by an *Antistrumatic* Course; otherwise after long waiting for this *Exfoliation* to no purpose, 'tis odds if you are not forced upon the same.

In like manner, where it happens that the *Apophyfis* or Extremities of the larger Bones are corrupted, and the *Caries* got into the Joints, the Case

is still more deplorable and desperate, so great a quantity of the nutritious Juices being usually carried off in the discharge from the *Ulcer*, as to induce an *Atrophy*, and bring on a *Marasmus*, which destroys the Patient: The difficulty being the same in getting these Parts of the Bones *desquam'd*, as those smaller of the Toes and Fingers: So that having no other prospect of relieving the miserable Patient, it is your Duty, before he is too much exhausted, to propose [where the same may be practicable, as on the Ankle or Knee, the Wrist or Elbow] an *Amputation*: But if this cannot be enterprized, by reason of the Situation, as on the Joint of the Hip or Shoulder; or where the Patient will not consent thereto, there is little more that you can do than to keep your *Ulcer* clean, the spongy Flesh from rising, and the *Caries* dress'd up dry, till Time may dispose it for Separation: Whilst the Physician contributes farther Assistance, by keeping off the *Hætic Fever*, softening and temperating the Juices, strengthening the Tone of the Blood, and preventing its Colliquation; through which, either by Sweats or Loosnesses, together with the great discharge by the *Ulcers*, these unhappy Patients are commonly as before observ'd, exhausted or drain'd away: But of this we have spoken already in the *Sinuous* and *Fistulous Ulcer*.

In regard to the Method of attempting the Cure by *vulnerable Injections*, I think the same unlikely to succeed better here than in those we formerly took notice of.

As troublesome sometimes, and of bad Consequence also are the *Ulcers* where a *Caries* lyes under an *Artery* or *Tendon*, and which therefore cannot bear, nor will admit those sharp Medicaments, hot Irons or *desquamatory* Applications, the Bone requires, and which must therefore be treated in  
a milder



a milder way, till *Nature* disposeth the rotten Part for Separation: But if the *Tendons* only, and those of lesser Import, as the *Flexor* or *Extensor* of a Finger or Toe, as in some *Ulcers* of the *Metacarp* or *Metatars*, obstructs the Work, or hinders your Application of suitable Remedies, the same must either be digested off in *Slough*, or divided, if you cannot otherwise accomplish your End, and the *Ulcer* after treated as above directed.

A *Limner Draper* in *Cornhill*, riding in a Chaise Hist. 77. with a vicious Horse, and trying to brake him, the Horse upon whipping, threw his Hind-Feet into the same, and with one of them, struck him smartly upon the fore-part of his Leg. Presently after the Hurt I was sent for, and examining the Limb, found there was no Fracture, only a rase on the Shin-Bone: However his pain was very exquisite, being incapable of setting it to the Ground, or even letting his Leg hang down.

His habit of Body by a free way of Living, being none of the best, I did all I could to keep off the Fluxion, Bleeding him freely upon the Accident, and after covering the Excoriation with a Digestive, surrounded the Part with a Defensative Emplaster, ordering him to keep up, and to live as sparingly as he could, in respect to his Diet and Liquors.

The next Day notwithstanding, I found a Tumour stretching down the Shin-Bone, so exceeding tender that he could scarce suffer me to remove the Plaister, or with my Finger, tho' very gently, to embrocate the Part *cum Ol. Rosar. ac tantillo Aceti*, when laying down the same, and gently rolling from below upwards, I dres'd him up again with a small Pledgit of my *Cerate* upon the rased Part.

The Day following, the Swelling still encreasing and beginning to inflame, I took off the Defensative, and directed an *Anodine Cataplasm ex decocto Flor. Sambuc. ac Flor. Rosar. cum Mica Panis, Vitell. Ov. ac pauculo Croci*, as directed in the incipient *Phlegmon*, of which Kind I now suspected this would prove, mixing a small Quantity of *Unguent. Sambuc.* therewith, and embrocating the Parts all round before its Application, the better to keep it soft and easy: But finding our Endeavours fruitless to discuss the impacted Humour, a Fluctuation being perceptible underneath, after two or three Days more, I changed this also for another *ex Lill. alb. cum Ficubus in Lacte coctis*, to forward the Maturation and hasten the Discharge, considering the Part it lay upon, the Shin-Bone, or Ridge of the *Tibia*, so nigh at hand: When in short Time afterward the Tumour being suppurated, I apply'd a *Caustic* on the most rising Part, rather inclining to the Inside, and the same Night let out the Matter: Upon which he grew easy; and continuing my Digestive, the *Eschar* at about the Week's End cast off, and left a very fair and florid *Ulcer*, which being dress'd with the warm *Liniment*, and, as the Flesh therein requir'd, strew'd over with *Precipitate*, appear'd well dispos'd for healing, the Sinuosity all round, which was at first very considerable, and from whence large Quantity of Matter had discharg'd, uniting by Compress suitably adapted, and the *agglutinative Bandage* so term'd by the Antients, or the Roller with two Heads, as we have formerly taken Notice, so manag'd over the said Compress as to assist the Pressing forth of the same from the Cavities, and promote the Union of the Parts sever'd thereby: The Bone to all Appearance safe and not denuded of its Membrane the *Periosteum*, which however seem'd thicken'd,

render-

rendering the *Ulcer* exceeding painful; and notwithstanding our Endeavours to get incarn'd, it quickly after slough'd off, leaving the *Tibia* bare on the Inside for about half an Inch in Length, where the Source of the Mischief first of all began from contusing of this Part by the Horse-shoe.

In order to keep under the spongy Flesh, it was sprinkl'd with *Precipitate*; and the better to come at the Bottom, and dispose the *Tibia* for *Desquamation*, I laid in a Piece of Gentian Root, which by the next Day had so enlarg'd the *Ulcer*, that we had more room for our Dressings: But the Sore growing very painful, he would not suffer its Repetition, so that I was oblig'd to keep the Cavity distended with hard Dossils of dry Lint, and a moderately straight Bandage for Security thereof, dressing up the Bone with a Pledgit express from the Tincture of Myrrh: And whilst we were thus waiting the *Exfoliation*, a new Tumour with Inflammation arose below, threatening an Abscess. We were now forced to slacken the Bandage, and try to discuss this fresh Disturbance, embrocating as at first with *Unguent. Sambucin*. When after a few Days the same encreasing with throbbing Pain, I found there was no preventing an *Apostemation*, and therefore changed the first Application for a *Suppurative Cataplasim*. Upon which my Patient, somewhat discontented, call'd in Mr. S——r, a Person, I think, of more Note than Honour, (at least I found him so,) and, I am sure, of no sounder Judgment, or more Learning, than many others of our Profession. At our Meeting it was proposed to lay on another *Caustic* upon this new *Abscess*, of such Dimensions as to procure an *Eschar* as large as a Crown Piece; and letting out the Matter, digesting also the same off, we found  
(as



(as I expected) a very troublesome *Ulcer*, so apt to be over-run with luxuriant Flesh, that we had near three Months Work to reduce it to a Condition of *Cicatrising*, sometimes strewing round the Edges the impalpable Powders of *Lap. Calam. Lapis Tutia, prepar'd Lint*, having not without much Pain and Difficulty levell'd the Flesh with that of the *Calx viva*, or a Touch of the Alum and Vitriol Stones. His Reason for so large an *Eschar*, was to prevent the Trouble of Dilating afterwards, which the same Compress and Bandage as used in the Beginning, might have obviated in all likelihood; altho' there was the less Notice taken of this, because of our Attendance upon the *Caries* in the *Ulcer* above, which at length began to rise, but lay intangled at each Extreme, and bound down by the Flesh: Upon which I declar'd my Dissent against any Force to extract the same, advising rather our waiting a few Days for its being more perfectly loosen'd; In the mean Time strewing on the *Precipitate* upon the Flesh: But my Assistant, impatient of longer Delay, and to shew his Dexterity, I suppose, whilst my Back was another way, thrusting his Probe underneath the *desquam'd* Fragment, and bearing outwards therewith, up sprung the same near a Yard high, with Blood following. However, we continued our dry Dressings, and, as it happened, meeting with no farther Interruption from any Point or Angle left behind under the Flesh (of which there was too great Hazard, I think, run by this hasty Forcing it up,) in some Time after healed the *Ulcer*, whilst the lower created us longer Trouble; and before we could get a *Cicatrix*, at least such as would hold, we were obliged to continue the Patient under a strict *Regimen*, as to Rest and Diet, giving *Calomel*, between whiles, ordering also a Laced Stocking,

Stocking, which he wore some Time after: And notwithstanding the vast *Eschar* upon a Part so sensible as the *Tibia*, that had occasioned a Work of so long Time, by the Fluxion and *Fungus* accompanying, which there was no Occasion for; yet by the mean and little Artifice (altho' neither Art nor Judgment did preside therein) of throwing out the Bone, my Assistant was suppos'd to have wrought a Wonder, and it was surmis'd by the Family, that had he acted by himself, the Bone might have been got out sooner, and the last Apoptemation, whose tedious Cure he had manifestly occasion'd, been prevented: But he is gone, and I have trod, I think, as softly upon his Ashes as I could.

*Of the Old or Annual Ulcers.*

The last of the *Ulcers* we shall observe, is the *Old* Of Old or or *Annual*, so named from its Duration or Continuance of many Years, whereby having contracted Annual Ulcers. an obdurate or stubborn Quality, it will not but with great Difficulty give Way to *Chirurgery*, whether in *Digestion*, *Mundification*, *Incarnation* or *Cicatrification*. Of Kin to this are the *Telephian* and *Chyronian*, so called by the Antients, of which before; and in whose Cure you must expect to encounter with much Trouble, because not only the *Fibres* are distorted, the *Tubes* indurated, or grown as it were *Callous*, with the Vessels of all Kinds having Recourse thereto, damm'd up and obstructed, but the *Fluids* also, or *Juices* round about, so vitiated; or perverted from their genuine *Crafsis*, that it must be a Work of Time to render the first so pliable as they ought to be, or to restore the last to their pristine Temper and gentle Disposition.

Farther-

Farthermore, in all these *Ulcers* of long standing, the same Regard and Circumspection is requir'd, and ought to be used, as we formerly laid down for the Healing or Drying up the *Fistulae* of any Continuance, viz. That the Physician be consulted to mend the diseased Habit or morbid Condition of the Blood, and the Humours thence by the *Glandules* secreted, as (after general Evacuations premised) by a *Diet* of the *Woods*, or an *Aq. Calcis* medicated therewith: Also *Alteratives* specific to the diseasy Habit, whether *Scorbutick*, *Strumous*, *Venereal*, &c. such as the *Antimon. Diaphoret. Bezoard. Min.* with the *Mineral Aethiops*; whilst the Surgeon does his utmost with his local Remedies to render the *Ulcer* more tractable and benign; softening the Induration as was directed for that with *Callous Lips*, consuming the *Fungus*, if any happens to lie in the Way, with such Remedies as were laid down for that with the *Hypersarcofis*, subduing its *phagedenic* Quality or Erosion, as in the Corrosive or Eating *Ulcer*, as before. Lastly, the Rottenness of the Flesh or Bone, as mention'd but now for the Putrid and Carious; and, which you will see very material, endeavouring to alter the Figure of the same, especially if Circular, whence you will find an Advance towards the Curation; when by the common Method of treating *Ulcers* in general, together with the Assistance of your internal *Regimen*, as above, you perceive you gain but little upon the rebellious Malady, you are, in the Physicians Absence, to give the *Turpeth. Min.* once in three or four Days, in a Dose proportionate to the Age, Sex, and Strength of Body, as also Custom to the Use of such like Medicines, till there ensues a *Ptyalism* or Salivation, which must be kept up for 25 or 30 Days, if the Constitution will allow: The several  
other



other Methods of raising which, and how to obviate all attending Accidents and Symptoms, you will find plainly laid down in my *Syphilis* or *Practical Dissertation* on the Venereal Disease, printed some few Years since.

After this, the *Drying Diet*, Sweating and Purging between whiles will conduce to the farther Security of your Patient, and preventing a Relapse, not forgetting the Assistance to be had generally in these Cases, from the *laced Stocking* or *Arm-piece*, according to the Situation of the *Ulcer* upon the Arm or Leg: And truly much of this Time and Trouble might be saved, would our Patients admit of the rougher Management by the Knife or Fire, without which 'tis rare to find much Dispatch, or to work any remarkable Cure of this Kind.

The former, I mean the *Knife*, is employ'd in cutting away the *Callous* or otherways tainted Flesh all round the Sides, as well as Bottom; then dressing as a recent Wound with Loss of Substance: The latter to consume the same, and treating the *Ulcer* as a profound *Combustion*.

*Severinus*, for this Purpose, and at these Times, was wont to lay fine Pledgits of Lint or Tow, dipp'd first in Spirit of Wine, all round the Brims or Edges of the *Ulcer*, and then set Fire to the same: For Women and Children, a Rag spread over with some Mercurial Ointment, was laid between; and for rustick or stronger Bodies, he fill'd hollow Pipes of Brass with glowing Embers taken out of the Fire, and rolled them back and forwards lightly over the Edges and Surface of the *Ulcer*, by which he assures us he had cured some of 10 Years standing in less than four times so many Days; which verifies that *Chirurgic Apothegm*,

Qui

*Qui non medicamentis, ferro: & qui non ferro, sanantur Igne.*

HIST. 78. Neither of which however would avail in the Case of an elderly Gentleman I was concern'd for many Years past, Mr. *Darnelli*, at that time of the *Penny-Post Office*, and Brother to a Fellow of our College, now living at *Stannmore*, in *Middlesex*: This Gentleman had for many Years past labour'd with a large Ulcer on the Leg, wherein the *Tibia* lay bare and carious a great Compass, beginning, as I was then inclinable to believe, in the Nature of a *Spina*: The Edges round about were by length of time grown hard, and as it were *Cartilaginous*, by no means submitting to the *Precipitate*, nor indeed to any other *digestive* or *deterfive* Medicine, only furnishing a stinking *Gleet* between the times of Dressing, which render'd the same very offensive.

He sent for me to take my Opinion, who coming into his Chamber found an *Apparatus* by him, as if prepar'd by an Artist, *Dossils* and *Pledgits* of Lint, others larger of Tow, some armed with a *Digestive* of Linim. and *Precipitate*, others with my *Cerate de Lapide Calam.* which, unknown to me, he had procur'd by some other Hand, his Spoon and lighted Candle, with a Bottle of the *Tinct. Myrr.* and lastly, a *Wad* of Tow to lye over all, that might imbibe the *Gleet*, and save the fouling of Linnen-Rags, which, through the great Expence thereof, were the more valuable: Finding, I say, every thing in so great order, I expected a Surgeon was to have met me, or who had been there to get the Dressings ready: But he quickly undeceiv'd me, telling me he had many Masters, unto whom he had served more than two Apprenticeships, mean-

meaning Surgeons who had formerly undertaken his Cure, but all of them disappointing him, and having been at a very great Expence, a kind of Necessity, as foreseeing no end of the Work, had put him upon thus practising the Art upon himself; by which he had kept his Malady so far under, as to be capable of attending the Office, of which I think he was a kind of *Sub-Governour*, or *Deputy*.

When I came to examine the *Ulcer* strictly, I found the *Cariosity*, or rotten *Tibia*, which lay bare about 3 Inches in Length, and its whole Breadth on the Inside black as Soot, but fast and immovable; whence, and by the many Years it had lain thus expos'd, I infer'd the Taint had penetrated its whole Substance, and that there was little good to be done in so inveterate a Disease: For I perceived he had been no Stranger to the strongest of the *Desquamatory* Powders, as the *Euphorbium* and some others; neither yet to the *Actual Cautey*: So that considering his advanced Age, together with his thin scorbitic Habit, I could not see any great Likelihood of Success by any Means we could take: And therefore, being shy in the Engagement, I rather perswaded him to continue his own Method, 'till he discover'd any Loosening of the corrupt from the sound Part. But some new Disturbance arising, and disabling him from getting out to the Office, where his Attendance was expected, he sent for that eminent and judicious Surgeon Mr. *Edward Green*, who did all that Art could administer for him, attempting farther to subdue the Malignity with the hot Irons, and hasten, if possible, a Separation of the *Caries*; but Nature was too far spent, and a Constitution, before upon the breaking up, less able to grapple with so rough a Treatment: For  
being



being seized with a *Symptomatic Fever*, as his Relations conjectur'd from the Pain, a *Colliquative Diarrhæa*, or Flux, they told me, came on, and quickly sunk him under the Administration.

### Of the Verminous Ulcer.

Of the  
Vermi-  
nous Ulcer.

There is yet another *Ulcer* of a peculiar Kind; and which, from a particular Sort of Putrifaction, affording both *Matrices* and *Pabulum* also to such Insects, is called *Verminous*; and in the Cure of which you are especially to aim at the Destruction of the *Animalcules* foster'd therein, before you address your self to the *Ulcer*; tho' in doing this, you may very probably, with some of your mundificative Applications, correcting the putrid Ferment, overcome also the Off-spring thereof: For which End are chiefly directed some strong Decoction of the Bitters, wherewith the Ulcer is to be well wash'd and fomented; such are the *Fol. Centaur. Absinth. Abrotani. Tanaceti. Marrubij. Hyper. Menth. Scordij.* also the *Fella Animalium. Farina Lupin. Pulv. Aloes ac Ejusdem Tinctura in vino, Extracta.* and after digesting with *Precipit. and Basilic. or Linim. Arcaei*, some proper Deterfive must be apply'd to cleanse away the Filth; for which Use are the *Mundif. ex Apio. Ungt. Apostol.* and in case of greater Putrifaction or Insensibility in the Part, the *Ungt. Egyptiacum.* But more of this in our Account of the *Putrid and Sordid Ulcer.*

And thus I shall shut up my Discourse of the *Ulcer*; which, tho' short of one so elaborate or exactly methodis'd as it ought, or perhaps had been, had my Affairs permitted greater Leisure; yet I hope will be found to answer the Design, and so instructive also as to render any Account of this Disease,

Disease, as affecting some certain Parts, less necessary: However, not having yet I think exceeded the Bounds of some of the foregoing Sections, I will touch upon a few Particulars unheeded in what went before, that the same may be farther useful.

And First, as to the Ulcers of the Hairy Scalp, <sup>Of particular Ulcers,</sup> we have already given Directions for those which are usually the most rebellious and stubborn, when speaking of the *Achor* and *Favus*, in another Treatise, of the *Skin Diseases*, Part II. Chap. 2.

Ulcers above the Orbit of the Eye, especially with a bare Bone, require, as well before as after *Exfoliation*, the most powerful exiccating Medicaments, both *Sarcotics* and *Epulotics*, being usually supply'd with great Afflux of Humour, and abounding with Humidities from the *Simus* in the *Cranium* underneath; upon which account the Tincture of Myrrh and Aloes may be apply'd with Lint; also the *Pulv. Thuris Sarcocol.* and the like are at such times mixt up with the *Linim. Arcaei*, or with a little *Mel Ros.*

The Ulcer of the Eye is in some measure provided for, in what we have formerly laid down, <sup>Ulcers of the Cornea,</sup> when discoursing of the *Strumous Ophthalmy*; besides which, other Remedies may be prepar'd of the subtil or impalpable Powders of *Myrrh*, *Aloes*, *Sacch. cant. alb.* *Sarcocol.* Thus, *Cerussa*, *Lap. Calaminar.* *Tutia*; which are either to be infus'd in some of the *Ophthalmic Waters*, as the *Aq. Euphrag.* *Chelidon.* *Fenicul.* *Verbenæ Rosar.* or thickned with the Juices of those Plants, together with the *Mel Ros.* into an Ointment, of which kind is this following from *Riverius*.

R $\bar{x}$  Suc. Fenicul. Suc. Chelidon.  $\bar{a}$   $\mathfrak{z}$ j. Suc. Ruta  $\mathfrak{z}$ ss. Pulv. Aloes  $\mathfrak{z}$ j. Vitriol.  $\mathfrak{z}$ ss. aris Virid, gr. v. Fellis Anguilla, Bovin. vel Porcini  $\mathfrak{z}$ ss. Sacch. Cant. Pulv.  $\mathfrak{z}$ ss.

Bullientur succi & clarificentur, dein adde pulveres fiatque Collirium.

The Cinnamon and Ginger, directed by the Author, are here omitted.

Heurnius, for the Ulcers of this Part, directs thus; which he calls *Infallibile Ophthalmicum*, and which I have tried on some foul Ulcers on the Cornea with Success, viz.

R $\bar{x}$ . Lapid. calamin. ter usti & aceto vini extincti  $\mathfrak{z}$ i. Myrrha, plumbi usti ac loti  $\bar{a}$   $\mathfrak{z}$ ss. Croci g. v. Opij gr. ij. aris usti  $\mathfrak{z}$ iv. Decocti Fanugr.  $\mathfrak{z}$ j. misceantur exactissime supra lapidem porphiritem: vel loco decoct. suprascript. cum Axung. porcin. rec. in aq. ros. lot. ut f. ungt. melioris Consistentiæ nec non durabilior.

The Ol. Myrr. cum Sacch. cant. alb. Ov. inclus. & humido Cellario per modum Deliquij Extractum, is a good Ophthalmic for these Purposes; as also the Aq. Mellis heretofore observed; so likewise this.

R $\bar{x}$  Sarcocol. aq. Ros. nutrit. Cerus, Aloes lot. Myrr. Lap. Tut.  $\bar{a}$   $\mathfrak{z}$ ss. Sacch. Cant. alb.  $\mathfrak{z}$ j. mucilag. tenuior. Sem. Cydon. in aq. Plant. Extr. q. s. m. f. Collyrium.

But observe carefully in these as well as others, that you digest first of all, before you go about to deterge, and deterge before you attempt to cicatrise; as we have acquainted you, and by what Means, when we discours'd of Ophthalmia; where we also described the Ulcer called Egylops, and the *Fistula Lacrymalis*.

The



The *Eye-Lyd* is also subject to an ulcerous Affe-<sup>of the</sup>ction, called *Lippitudo*, with our People a *Bleared-Eye-Lyd*.  
ness; by which the inner Part of the lower Lyd most commonly is turned outwards, rendring the Vi-  
sage frightful and unseemly.

These Accidents are frequently owing to Burns, upon healing up of which, do all you can to prevent it; a Stricture will sometimes ensue, and the Lyd is pull'd down by the *Cicatrix*, which is not to be remedy'd. The like Misfortune hath follow'd after the *Small-Pox* and *Measles*, where a Flux of acrid or sharp Humours has long attended; together with an *Epiphora*, or involuntary Flux of *Serum* in the form of *Tears*: The Remedies for which, so far as Art can help, may be collected from what we formerly laid down concerning the said *Epiphora*, amongst the *Strumous Symptoms*: And where it so falls out, by the great and continual Moisture of the Parts, accompany'd with Ulceration, a *Fungous* or spongy Flesh ariseth, the strongest of your desiccative Applications there inserted may happen to be wanted, which failing, you may venture to strow on, but with the greatest Caution, some of the milder *Catheretics*, such as the *Pulv. Vitriol. vel Aluminis*, mixt together with a Proportion of the *Bolus verus*, *Pulv. Cort. Granat. Flor. Rosar. ac Balaust.* also a light touch of the *Lap. Calestis* or Vitriol Stone it self, taking special Care you excite as little Fluxion thereby as possible.

The contrary Affection to this last, is the *Lippitudo Sicca*, that is where the *Cilia* or Eye lashes together with their Cartilages, are, by means of a saline and hot Humour, overspread as it were with branny Scales or Scurf, producing frequently a troublesome Itching on these Parts: In order to the relieving of which Grievance, as in the *Hu-*

mid we directed the most exiccating or drying Topicks, Evacuation going before, so here contrarily such as *humect* or moisten and refrigerate are altogether most eligible, and such are the *Forus ex Decoct. Fol. Malv. Alb. Mercurialis, Verbasci, Viol. Collyria* also, or *Lotions*, prepar'd *ex Mucilag. Sem. Lini Psyll. Hord. Gallic. Sem. Papav. in aq. Plantag. Rosar. vel Sperm. Ranar. Cataplasms ex Medul. panis in Lacte*; after which, or between whiles, for healing up the Excoriation, the Edges of the *Cilia* are to be smear'd over with the *Ungt. Diapompholigos, Tutia*, or our *Cerate de Lapide Calaminari*. Proceed we now to those of the *Nose*.

Of the  
Nose.

And here also we must refer you back to the *Strumous Symptoms*, where we have taken notice of this *Ulcer* under the Name *Oxena*, if the same is of that Parentage; and to our *Syphilis* when *Veneral*.

Of the  
Tongue.

*Ulcers* of the *Tongue* and other Parts of the *Fauces*, have either a Relation to the *Aphthæ*, when of the milder Sort, called *Benign*, or *Veneral*; also *Cancerous*, when *Malign*.

The former being digested with the common *Pectoral Decoction* and a little *Mel Rosar.* or the *Decoct. Ulmi* of *Bates*, may, if not submitting thereunto, but spreading, be farther touched with the said *Mel* and a little of the *Tinct. Myrr.* or the *Egyptiac.* it self upon occasion, and after their Deterision, they may be dry'd up with that of some of the *vulnerary Plants*, such as the *Plantag. Equiset. Frugaria, Matrisylva, Aquilegia, Rubus*, which are made still more exiccating by the *Fol. Rosar. Balaust. Corr. Granat. edulcorating cum Syr. de Ros. Sic.* instead of the *Mel. Ros.* Of which more in our Second Section, when discoursing of the *Ranula*; as also in the foregoing, of *Wounds* of the *Tongue*.

When

When these Affects seizing, especially on the U-<sup>Of the</sup> *vula* and *Tonfilla*, prove *Venereal*, you may consult my *Practical Dissertation* upon that Distemper, in order to their Cure. <sup>Throat.</sup>

The *Cancerous Ulcer* of these Parts will bear neither *Digestive* nor *Deterfive*, nor must you expect to fare better with *desiccating Topics*; instead of which, you are only to endeavour *palliating*, by some *anodine*, *lenient*, *refrigerating* and *demulcing Gargles* or *Lotions*; such as the thin *Mucilages ex Sem. Cydon. Malv. Hyosciam. & Papav. in aq. Hord. vel Sperm. Ran.* with which may be mixed a few Grains of *Niter.* also the *Sacch. Saturn.* sweeten'd moderately with the *Mel Ros. Syr. Diacod. de Nymphæa*, and the like; and in great Extremity of Pain, the *Suc. Solani, Hyosciam. Lactuca, Portulacæ*, or with these a few Grains of *Opium*, adding the *Syr. Papav. alb.* or the *Mel Ros.* After the Use whereof, the *Ulcer* may be sprinkled *cum Pulv. Ranar. combust.* or the *Aq. ex Ranis in medio Alembico suspensis destilata, ut Empyreuma impediatur*, may be frequently held in the Mouth; which is accounted a sort of *Specific* in these *Ulcers*.

The *Ulceration* or *Erosion* of the *Gums* may be wash'd with a *Decoction* of the above-mention'd, to which, in *scorbutic Affects* thereof, may be added the *Fol. Cochlearia, Salvia*, in *Red-Wine* and the *Forge Water*; or they may be touch'd with a *Mixture* of the *Mel Ros.* and *Tinct. Myrrh.* also the *Spir. Vitriol.* half a score Drops to an Ounce of the said *Mel*: The *Mel Elatines* and *Spir. Cochleariæ* is a great Secret with some for these Uses; likewise this following is commended for the *spongy* and *putrid Ulcers* of the same Parts.

R. Tinctura Gum. Lac. ʒss. Sic. Cochlear. ʒij.  
Vini rubr. ʒj. Mel Elatin. ʒss. m.



of the  
Ear.

The *Ulcers* of the *Ear*, I mean its external Cavity, are commonly the Result of some preceding *Abscess* or *Apostemation*: In the beginning of this Disturbance, or where a Tumour ariseth round about, with Inflammation, Pain, Pulsation and other Signs of Suppuration, the same is to be forwarded with a *Cataplasm* of the *Rad. Lil. alb. cum capis Coctis*, or the *Fici pingues cum iisdem*, dropping at the same time into the *Meatus* a few Drops of the *Ol. Lil. Hyper. Chamemel*, and after the Discharge of the Matter, you may digest with the same, or the *Ol. Lini vel Amygd.* but in the Use hereof, you must be cautious of persisting too long, for fear of corrupting the *Tympanum* or Membrane underneath, and prejudicing the Hearing: Wherefore so soon as the Abscess is well digested, you are to mundify with the *Decoct. Hord.* and *Mel Ros.* after healing with the said *Mel*, liquify'd with the *Tinct. Myrr.* and drop'd in two or three times a-Day Blood-warm, as must all other Applications here, as well as to the Eyes.

But in the old, sordid and stinking *Ulcers* of these Parts, or such as are attended with greater Putrifaction, some stronger and more deterfive Medicine must be instill'd; such as a Decoction of the *Fol. Centaur. Agrimon. Hyperic. Absinth. Apij. Marrubij.* or the Juices of those Plants exprest, and being depurated, mix'd up with *Mel Rosarum*; to which, according as the *Sordes* may require, are sometimes added the *Ungt. Egypt.* and for the farther subduing the Stench and Putrifaction, the Tincture of *Myrrh* and *Aloes*.

The *Ulcer* being thus mundify'd, you may attempt the drying it up, after general Evacuation, with an Infusion or Decoction of some of the *Styptic* Plants we prescrib'd above for those of the Mouth and Throat, observing still, as we have but

but now hinted, that in drying more particularly the old *Ulcers* of the said Parts, which are the proper *Emunctories* or Sinks to the Brain, you must carefully prepare your Patient's Body, by repeated Purgation, with some proper *Cathartic* of the *Cephalic* kind, such as the *Pil. fæid. Cochia Succin.* or the like; deriving the Matter also some other way, as by *Vesicatories* or *Fontanels inter scapulas*, at least placing one *inter Bicipitem at Deltoideum* in the Arm, upon the drying up such *Ulcer* as afore-said.

*Ulcers* on the Outside of the *Jaw*, whether Upper or Lower, but particularly this latter, having a *Sinus* running towards the *Alveoli* or Sockets of the Teeth, require oftentimes a narrower Inspection of the Inside of the Mouth, than that of the external *Ulcer*; in the Dressing whereof, you may happen to find your Labour lost, till some faulty Tooth therewith communicating, is extracted, whence the Source of all the Mischief: And thus I have met with many Scores of these *Ulcers*, some of several Years standing, which, upon removing such faulty Tooth, have healed in few Days after with a Pledgit of dry Lint. If the said Teeth on the Side affected do appear, upon the said Inspection, a like sound or rotten, that opposite to the *Ulcer* is usually the Tooth concern'd, which is still plainer to be discover'd, if, striking round about with your *Phlegm* or *Spathula* on the Sides of them, the Patient finds a Jar, and makes Complaint when you come at that Tooth; tho' generally its Loosness and visible *Cariosity* directs the Operator, where to perform his Office.

A necessary  
Caution about the  
Ulcers of the  
Jaws.

The remaining Ones, of the *Trunk* or *Limbs*, require, I think, so little Variation in the Cure, from what we have deliver'd of *Ulcers in general*, and the particular Kinds of them, that we shall

Ulcers of  
the Legs.

have less need to enlarge thereon: Only taking this Notice, that the *Ulcers* on the Legs, those particularly which are subject to great Pain, Inflammation and Flux of Humours, and more especially in dry Habits of Body, will not bear the common Digestives used in those of other Parts; upon which account you will be often obliged, in the superficial Ulcerations, to dress with some *anodyne* or lenient Medicament, as the *Ungt. Diapomph. Tutia*, or, which excels all others, my *Cerat. de Lap. Calam.* and where the *Ulcer* is sordid, remaining crude and undigested, I usually mix'd a small Quantity of the *Precipitat.* therewith, if the Tenderness of the Part would not admit of strowing on the same, and first going over lightly with a Feather dip'd in the warm *Liniment* of *Arcaus*, (*Basilicon* being scarce allowable, especially about the Shins) laid on the said Application with a Pledgit of Lint, embrocating round about *cum Ol. Ros. vel Ungt. Sambuc.* or a defensative Emplaster as an Intercipient, with suitable Bandage, injoining Rest with a due Position of the Limb, if not in Bed or upon a Couch, lying along, at least upon some Chair or Stool, near a Level with the Trunk of the Body.



SECT.



## S E C T. VII.

Of Fractures *in general.*

**A**T the beginning of our First *Section* we did observe to you, that the Practice of *Surgery* was principally employ'd about *Tumours, Wounds, Ulcers, Contusions, Fractures* and *Dislocations*: The three first of which have already taken up our six preceding *Sections*; the Fourth, I mean *Contusions*, I have formerly noticed in another Treatise, *i. e.* a *Discourse of the Skin Diseases*, where the same happen to be *Cutaneous*, in the 9th Chap. Part II. under the Names of *Echimosi*s, *Echimoma* vel *Sugillatio*: So that having neither Leisure nor Inclination to repeat here, what I have there deliver'd: I will only add some short Hints, by way of farther Instruction upon this Subject, and proceed to the *Fracture*, which take as follows, *viz.*

1. That in all *Contusions*, where there is Extravasation of the Blood to be feared, but especially of the Head, Breast or Belly, the Patient must presently be let blood, according to his Age, Strength and other attending Circumstances, whereby not only the Vessels being emptied, may be readier to suck up the diffused Liquor before it stagnates, but the Consequents of Pain and Fluxion, or the Tumour and Inflammation likewise prevented: At the same Instant you are to apply some suitable repercutient Medicine, that may inhibit in somewise the Course of the inflowing Blood, shut up the Mouths of the distorted *Capillaries*, and

*A Digression about Contusions, and the Method of Cure.*

## Of Fractures in general. Sect. VII.

and prevent the spewing out any more of their Contents, round about the Parts contus'd.

For this Purpose serve the common Defensative of *Diapolma*, *Bolus verus*, *Acet. Vin ac Ol. Rosar.* formerly mention'd: *Embrocations* also *ex eodem Ace-to cum Ol. Myrtil. Epithems* of *Oxycrate cum Alb. Ovor.* or thicken'd with *Bole*, and apply'd Plaister-wise; *Cataplasms* prepar'd from the Decoction of the *Rad. Symphit. Bistort. Tormetil. Fol. Plantag. Equiset. Burf. Pastor. Cort. Granat. Flor. Balaust. Fol. Rosar.* in Red-Wine, or the Smith's Water from the Forge, after thickening with Bean-Flower and a little fine *Bole* interspersed.

2. You must take notice, that this Method be us'd only in recent *Contusions*, or whilst the Disease is, as we say, *in fieri*; least otherwise, where the Blood has been long extravas'd, or thereby deprived of its native Heat and Fluidity, and render'd incapable of returning, it may be faster lock'd up, and turning into *Grumes*, putrify in the Parts, producing *Gangrene* and *Mortification*, at which times you are to mix *Discutients* with some moderate *Re-stringents*; the former to set open the Pores, for breathing forth any Humour stagnis'd and impacted; the latter to constringe gently the Mouths of the Vessels ruptur'd, and prevent any farther Effusion of their Contents.

And for this End a Fomentation may be prepar'd, *ex Summittat. Centaur. Min. Hyperic. cum Flor. Chamemel. Rosar. Balaust.* decocted in Red-Wine or the Steel-Water, which in like manner may be thickned into a *Poultice*, with the *Farina Fab.*

3. Where there is great Effusion of the Blood, and little Likelihood either of repelling or discussing the same, you are by no means to wait for *Suppuration*; but having satisfy'd your self, that the Extravasation proceeds not from any ruptur'd Artery,

Artery, or that there is no *Anacurism* in the Case, to be gather'd from what we have before deliver'd of that Disease, you must open the Tumour, and give vent to the serous Humour or Blood coagulate; afterwards digesting the Wound, and proceeding as in those complicate with *Contusion*, we have also directed.

4. As in those of the Head, all possible Caution and Circumspection are requir'd, by reason of the *Cranium* and the Brain underneath; so also in those of the Joints, you must take all suitable Precaution, by large Bleeding, defensative *Topics*, spare Diet, and keeping up the Limb, to prevent the Afflux of Humour, more ready to fall down upon these more sensible *Tendinous* and *Nervous* Parts, taking especial Care that you are not deceived, mistaking the simple *Contusion* for a *Luxation*; by which, like those Roguish *Impestors*, who call themselves *Bone-setters*, but are more properly *Man-slayers*, if not *Murderers*, pulling and hawling the Limb already affected with Pain and Fluxion, instead of helping and relieving, you maim the poor suffering Patient, laying hereby Foundation for some *Abscess* and *Fistulous Ulcer*; ensuing afterwards with rotten *Ligaments* and *Tendons*, and if not a *Cariosity* on the Bones, which frequently falls out, at best of stiff and feeble Limbs, for their whole Lives after.

5. And Lastly, In the *Contusions* of the Trunk and Belly, called otherwise the *Venters*, your chief Recourse must be to the Physician, who, by *Traumatic*, *Agglutinative*, and *Balsamic* Prescriptions, such as were laid down in our Discourse of the Wounds of the said Parts, may contribute to the Cure: Some Forms of which, besides what are here directed, you may find in the Tract before referr'd to, which being diligently administer'd, in  
order



order to preserve the Fluidity of the Blood, and hinder its Stagnation, it has been also customary in extraordinary *Contusions*, to enwrap the Body, especially the bruised Parts, in the Skins of Animals hastily flea'd off, and apply'd with their Natural Heat, being renew'd for three or four times, at proper Intervals: To which Experiment, I must needs say, I had great Reason to impute the speedy Recovery of an *Hypochondriac* Gentleman, who had thrown himself from a Window two Story high, and lighting first on a Pent-house; fell thence upon a Stone Pavement, without *Fracture* or *Luxation*: But quitting this Subject, I come now to entertain you with my Account of *Fractures*.

The Fracture described.

The Word *Fracture*, as used by the Surgeons, and I think it is not so often by others, implies a Solution of the Continuity in the hard Parts of our Bodies, called the *Bones*, from some outward Violence offer'd thereunto, as by *Falls*, *Blows*, *Jumping*, *Leaping*, nay a *Slip of the Foot upon a plain Floor*, the *Leg* being thereby somehow distorted, and falling under the *Weight of the Body above it*, has been sufficient to snap the *Bones* asunder.

The *Rupture* is, with some, of the like Import; but as Custom has appropriated the former to these Accidents of broken Bones, so by the latter is understood among the same Artists, a Breach or Rent in the *Peritonæum*, as we observ'd formerly in our *Section of Wounds*; where we acquainted you that both *Hippocrates* and *Galen* have given that Name, *i. e.* of Wounds, even to these *Solutions*, as well as those in the softer Parts.

But quitting controversial Disputes about Names, where we understand or know the thing signified thereby, we shall stay only to inform you farther; that as those in the *Flesh* were differenc'd by their *instrumental Cause*, so the *Solutions* of these also, from

from their *Efficients*, have had various *Greek* Appellations: Thus that made by a *cutting* Instrument, was called *Τραῦμα*, *Vulnus*; those by *Erosion*, *Τερνιδων*, from a Worm of that Name, as before noticed; and those by *Contusion*, *Κάτασμα*; which last usually comprehends the rest, and the Applications to promote their Union, and engender a *Callus* about their broken Extremities, are thence named *Catagmatica*.

The Causes of *Fractures* we have already observed to be some outward Violence, tho' the extraordinary Fragility of some Persons Bones beyond others, must arise from a Cause internal, such as their too great Siccidity, or Lack of Oil consum'd by long Sickness or Old Age. The too frequent Use of Mercury, we are told, will render these Parts brittle.

*Marcellus Donatus* reports, that a Person going to throw the half of an Orange at his Companion in their Sport, by the meer Projection of his Arm, fractur'd the same; and before he was recover'd, putting his other out of Bed to reach his Chamber-Pot, broke that also; which he imputed to a Mercurial Uction he had lately undergone for the *Lues* he had long labour'd under: So that very probably that Disease itself, by vitiating the Juices of the Blood, might not a little contribute to the same, as may be inferr'd from the Texture of these Parts thereby destroy'd in the *Spina* and *Exostosis*. Hist. 79

*Capivaccius* acquaints us with another, who broke his Arm as he was throwing a Nut against the Pavement, in order to come at the Kernel: But the most surprising Instance of this Fragility, which I have heard of, is that recited by *Hildanus*, Cent. 2. Obs. 66. who there informs, that the *Os Humeri*, a large and strong Bone, was fractur'd in two Places, by only drawing on a Glove. Hist. 80, 81.

On

**HIST. 82.** On the other side, the Relation of *Fernelius* is as remarkable, of a Soldier, who, after a Fit of Sickness, had his Bones so mollify'd, that, like soft Wax, his Arms and Legs would bend any way without breaking, who was cured, as the same Author informs us, of this Misfortune, by bathing in the *Alum Water*: But we shall now speak of the Differences of *Fractures*.

*Division.*

The general Division of *Fractures*, is into *simple* and *compound*; by the former meaning a Solution of the Bones without a Division of the Continuity in the Flesh or Skin above; by the latter, in both, or a *Fracture* complicate with a *Wound* in the outer Coverings.

Now, tho' I think the *simple Fracture* thus understood, when accompany'd with any dangerous Symptom, as *Erysipelas*, *Convulsion*, *Gangrene*, and the like, may be properly enough said to be *compound-ed*, albeit there is no Breach in the outward Tegument, yet will I not find Fault with this general Division of the antient Practitioners, which still takes Place among us.

Of *simple Fractures* there are divers, not now to mention those of the *Cranium*, which has some more peculiar to itself, as we shall observe when we come to speak of *particular Fractures*: The more usual I reckon the *Transverse*, the *Oblique*, the *Longitudinal*, the *Semifracture*, and the *Fracture* with *Comminution*.

*General  
Diagnosis.*

The *Diagnostic* Signs of which, especially those made transverse, oblique, and more particularly that with *Comminution*, are often discoverable to the naked Eye, upon the comparing one Limb with the other; when on the fractur'd Part, some Prominence on one Side, and Hollowness on the Side opposite, or an Inequality, is espy'd by an exact Surveyor: But a strict and prudent Handling of the



the broken Limb, enables us to make the best Judgment, not only as to its Reality, but of what Sort or Kind; for while the Limb is supported by an Assistant, if you press with your Hands up and down, bearing with one towards, with the other from you, both upwards, downwards and side-way, you will not only observe the Crushing of the Ends of the Bones, but continuing your Enquiry with your Fingers, unless the Bone be bury'd deep among the Muscles, as the *Os Femoris* in some corpulent and full Bodies, you will discover the Site of the *Fracture*, and Extent of the same, whether pointing obliquely under the Muscles and Skin above, or transverse or a-cross the Limb.

The *Comminution* will not bear this Scrutiny, nor requires it, since the very lifting up the same, puts the poor Patient on the most dire Complaint, through the shiver'd Angles of the Bones pricking the Muscular and Nervous Fibres, whilst the Limb itself makes a kind of Curve or Angle, upon such Elevations.

The *Fracture secundum Longitudinem*, is rarely met with in Comparison with the other. I cannot say that in more than 20 Years (for the greatest Part of which Time I have seldom had fewer than four or five, of one Kind or other, at once under my Inspection) that I have met with more than two, that I could really think such. However, the Patient's Complaint throughout the whole Length of the Limb, with the unusual Fulness from one Extreme to the other, if the Cleft be not perceptible to the strict Impression of the Finger along the same, together with its Inability, when the Leg or Thigh, to support the Trunk of the Body in the erect Posture thereof, without Complaint, give farther Jealousy.

And

And being now discoursing of the *Diagnostics* of *Fractures* in general, I cannot pass by unobserv'd, that vulgar Errour of the Patient and By-standers, who will not allow a Limb to be broken, whether Leg or Arm, if at the same Time they can move their Toes and Fingers; as if the Bones, which of themselves are immoveable, unassisted by the Muscles and their Tendons, and afford only Stability, were concern'd immediately in voluntary Motion, which is the peculiar Function of those other Parts, when influenc'd by the *Fluid* of the Nerves.

On the other hand, such is their Incogitancy and Imprudence, that upon some Wrench or Distortion of the Tendinous Parts, by which such Motion is now render'd painful and difficult, you can hardly perswade but their Bones are broken; And unless at sometimes you countenance this their Prepossession, which is much beneath a Man of Art, who regards his Honour and Reputation, they will not, without great Difficulty, be perswaded to confine, or keep up their sprained Limbs, as they ought, on Account, as they surmise, of so simple an Accident; little considering such simple *Sprains*, as they term them, being at first neglected, or ignorantly treated, have ruined and lamed more than the real *Fracture* or broken Bones. And this for the *Diagnostic*.

General  
Prognostics of  
Fractures.

The *Prognostic* of these Accidents is to be taken from their *Figure*, *Situation* and *Cimplication*: And thus the *simple transverse Fracture* is easier of Cure, and less hazardous than the oblique.

From their *Site*: So *Fractures* in or near unto the *Joints*, are more dangerous, and attended with worse *Consequents*, than when happening about the *Middle* of the Bones, or farther from their *Extremities*. *Fractures* also of the *Cranium*, or *Skull*, are never void of *Danger*; not so much as *Fractures*, but through the *Vicinity* of

of the Membranes of the Brain, and the Brain itself underneath, with the dire Symptoms consequent to those Parts injur'd or hurt thereby: but of these more particularly, when we come to speak of the fractur'd Cranium.

Fractures of the Ribs are also troublesome and hazardous, by reason of the adjoining Membrane of the Pleura, at such Times disturb'd thereby, and subject to Inflammation.

Fractures of the Os Femoris, happening especially on the upper Part, are also difficult to be replaced, and secur'd therein; for that a Number of large Muscles so envelope this Bone, as to render the Reduction thereof troublesome, and to keep the Bones in their Places after such Reposition; so that it will always behove the Artift at these Times, to be cautious in his Prognostic, or how he promises a compleat Cure, without that common Event of one Leg a little shorter than the other, and wanting the Heel of the Shooe to be rais'd for supplying this Defect of an equal Length: In the broken Thigh it being rare, let the Surgeon do the best he can, unless in Children, who often escape better, to find these Accidents terminate without some Limping.

From their Complication, and thus all Fractures accompany'd with a Wound, and more especially those by Gun-shot or Fire Arms, are manifestly more dangerous than the simple, whether transverse or oblique: Also those attended with great Contusion, large Tumour, Inflammation, Abscess, or the like, are much more hazardous, than where no such Symptoms supervene.

Lastly, The Fractures which happen to the Venereal, Scorbutic, Hectic, Hydropic, or other Cachectic or Cachochymic Habits, are always worse, and more dangerous, than when befalling a better, firmer, or



founder *Temperament* or Constitution. Also *Fractures* of pregnant or great-bellied Women, are more difficultly united and consolidated than others. *Hildanus* tells us, he spent 10 Months Time in attending a Woman with Child that broke her Leg, **HIST.** 83, before he could get a *Callus* to hold the Bones together: All which Time he was forced to bear her Clamours, whilst he did his utmost for her Recovery. The like Account he gives of another, where, after 23 Weeks, he found the Bones still loose, through the nutritious Juices at these Times, as he rationally surmised, being carry'd off from the other Parts to nourish the Fœtus. Come we now to the Cure of *Fractures in general*.

Cure of  
Fractures  
in general,  
and first of  
the simple  
one, with  
the Appa-  
ratus.

In which I reckon two more principal *Indications*, viz. The *Reposition* of the fractur'd Parts, and their *Retention* when re-placed, till *Nature*, by the Intervention of a *Callus*, has cemented their Extremities: In order to which, I shall lay before the young Practitioner, the following *Apparatus*, which he is to set by him in a large Dish, on a Stool or Table by the Bed-side, that the same may be more ready at hand: 1. A *Plaster Compress*, 2. a *Defensive Emplaster*, 3. a Couple of *Bolsters of Cloth*, 4. a *Roller*, 5. *Splints*, 6. *Tape*. 7. A *Bason of Oxycrate beat up cum Alb. Orvor*. 8. A Pair of *Scissars*, 9. a *Penknife*, 10. a *Pin-cushion with Pins*.

These being Pre-requisites for the Reduction of simple *Fractures*, at least what I found necessary in my own Practice, I shall deliver a few Words, by way of Explanation, concerning each of them.

Having before-hand examin'd the *Fracture*, and discover'd what Parts of the Bone protuberate, or are likely to do so; let your *Plaster Compress* first recited, and prepar'd as we have formerly advis'd, be well fitted to the rising Part, that it may the more exactly compress the same, after the Redu-  
ction

tion of the *Fracture*, and prevent its starting up again: At the Time of taking this Survey, you may likewise observe the Compass of the Limb broken, with its Depth from an Inch or two below the upper Joint, to as many above the lower, supposing the *Fracture* near the Middle, whether of the Leg, Thigh, Wrist, or Shoulder-Bones; by which you may guess of what Length and Depth to shape your *Defensative*, prepar'd *ex Diapalma, Bolo vero, Ol. Rosar. ac Aceto Vini*, handsomly adapting the same in its Dimensions.

The *Bolsters* are to be prepar'd of fine soft Cloth, two or three times folded, of a Depth suitable to your Plaster, rather deeper than otherwise, and of such Breadth, that being laid on each Side of the Limb, they may almost encompass the same.

The *Roller* is to be double or single-headed, of Length and Breadth suitable to the Situation of the *Fracture*, and Compass of the Limb. The Antients used three separate *Rollers* for *simple Fractures*, whilst the modern Practitioners generally content themselves with one, and that single-headed: But in *Fractures* of the Joints, I have found sometimes the *double-headed* preferable, as more regularly compressing the fractur'd Parts, and retaining them in their proper Places, where there is no room for the Application of *Splints*, but only the *Cloth Compress* dipp'd in *Oxycrate cum Alb. Ovor.* and wrung out, which, after some Hours, growing hard and dry, in some measure supplies their Places.

The *Splints* which I prefer upon these Occasions, are those prepar'd by the *Card-maker*, for the Use of the *Hot-presser* and *Packer*, of pasted Paper, of which I was never without half a Dozen of Setts for the Wrist, Arm, Leg and Thigh, ready shaped to Limbs of several Sizes, and beat down at the

Edges; which fit much easier and more securely too, than the *Sword-Scabbards* used by some, or the flat Pastboards dipp'd in *Posca* at the Time of Using, and then fitted to the Parts.

These *Splints* are to be much of the same Depth with your *Bolsters*, but rather shorter, to prevent their Edges offending the Skin either above or below, of such Breadth, as that two may comprehend the Arm above the Wrist, three above the Elbow, of large or full grown People, as many for the Leg, and four for a Thigh.

The *Tape* is for tying your *Splints* close, beginning in the Middle, and then fastening one above and another below; for which and other Purposes to be mentioned presently, you are to provide your self of several Yards, narrower or wider, as the Bulk of the Limb requires.

The *Oxycrate* is for dipping in your Cloth *Bolsters*, and sometimes your *Bandage* also, after expressing the Liquor, rolling up the one tight, and laying the other spread out smooth thereby.

The Use of the *Pins* I shall not enlarge on, being well enough known for fastening the End of the *Rollers*; nor yet of the *Scissars* or *Knife*, which are always to be in Readiness: The first to cut off the Ends of the *Tape*, to rectify any thing amiss in the Compress or *Bolsters*; the latter, to remedy the too great Length or Breadth of the *Splints*, or shape them to the Parts for which they are intended.

This, as I have found necessary, was my own *Apparatus*, at these Times: And being thus provided for your Work, supposing the Leg *fractur'd*, the Patient laid carefully in his Bed, with the same resting on a soft Pillow, reaching from the Heel somewhat higher than the Ham, let your two Assistants, fitted for the Work both in Strength of Body as well as Presence of Mind, be placed one of them



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them at the Foot, the other at the Knee: The former with his Left Hand under the Heel, and all the Fingers of the Right on the Top of the Instep, the Thumb bearing against the Sole of the Foot; the latter with the Fingers of both about the Gartering below Knee underneath, with his Thumbs opposite on the Top of the Leg; this being the best Hold where the *Fracture* is near the Joint of the Ankle: But if in the Midst of the Leg, or higher up towards the Knee, the Gripe by your lower Assistant, may be made round the Small of the Leg, after the Manner as above, whilst a third Person supports the Heel, if there be Occasion.

Let these, I say, be so placed for their own Ease also, as that they may best continue in the stooping Posture, without wriggling or shifting the same, till the Work of Reduction is dispatch'd.

Your Assistants being thus fixed, you are to order the Limb gently and equally to be raised by them from the Pillow, that you may have Liberty, with your Hand and Fingers, to examine all round about the *Fracture*: When having by such Enquiry satisfy'd your self therein, as whether *transverse* or *oblique*, of one or both *Focils*, let the Extension be begun by one, and the Counter-Extension, by the other, at the same Instant: The Leg having been before so put into their Hands, that the great Toe may be opposite, or in a direct Line to the *Rotula* or Knee-Pan. During their Extension, it behoves the Surgeon to have his Eyes, as we say, about him, as well as his Fingers, with which, when he finds the Extension sufficient to bring the *fractur'd* Extremities upon the Level, without shivering the same, let him strait press down the rising or protuberating Parts into their proper Places, which he will find more readily to give Way, if, during the said Extension, with the Palm of one Hand he

pull to him the Part depress'd, and with the other thrusts from him that which is prominent.

This failing, if the Extenders are neither cramp'd nor tir'd, let him give Order for the Extension to be encreas'd both Ways, or at both Ends of the Limb, when again with his Hands encompassing the *Fracture*, let him strongly press together the divided Extremities, sinking down the rising Parts, and raising, as before, the depress'd: And finding them hereby replaced, let him again strictly examine with his Fingers, and see that he leave no Prominence or Inequality before he dress up: As a farther Help to his Judgment at this Time, let the sound Leg lie bare before him, that by exact Comparison, he may observe their Correspondence, which is truly necessary: Otherwise, if that Leg was bowed or crooked before the Hurt, you are not to alter the pristine Figure thereof; for, by attempting to make such Limbs strait, if you could accomplish the Work, your Patient would be little obliged, in that as much as you take away from the wonted Curve of such a Limb, however they might happen more slightly, yet so much you would deprive them of their Stability or former Strength; the Extreme of the upper Bone now bearing, perhaps, not more than the one half upon their Base the lower; which is the like Injury to them, as your leaving a crooked Limb would be to one which before the Hurt receiv'd was strait.

But I forget your Extenders, who by this Time, not improbably, may be cramp'd in their Postures, as well in their Hands as Backs (which I have often been) in stooping to help you: Wherefore having finish'd the Reduction, to your own Satisfaction and the Approbation of the By-standers, who are sometimes proper Witnesses of the same, when your Patient, by some After-Irregularity, has displac'd

plac'd your Work. Let your Assistants be encourag'd to hold out but a few Minutes longer, till your Dressings are dispatch'd, which being all ready at the Bed-side, as we before gave Direction, or the Dish wherein they lie, held to you by a Servant, first lay on your Plaister Compress upon that Part which just before lay prominent, to prevent its rising; then gently drawing your Defensative under the Limb, bring up the two Ends thereof somewhat strait, which may lap over an Inch; for the better Security of the Compress, and Adhesion of your Plaister; Over this you are to take two or three Turns with your Roller, first a-cross the *fractur'd* Part, for staying of the Bones; when having spent about one half, both above and below, lay on your *Bolsters* of Cloth wrung out of *Oxycrate* & *Alb. Ov.* on each Side, or at the Top and Bottom, as the Situation of the *fractur'd* Bone, and the bearing Parts thereof shall require, and continue over these, so many Circumvolutions of the Remainder of your Roller, as you shall find expedient or needful, always a little straitening when you come upon the *Fracture*, and turning your said *Bandage* at the rising Part or Calf of the Leg, for the smoother and more even Management thereof; which being past to the Gartering-Place below the Knee, you may come down again with the Remainder of your Roller, and fasten about the Midst of the Limb: When, with all necessary Dispatch, for the Ease of your Assistants, apply next of all your *Splints*; the first to bear upon the Compress, the second somewhat opposite, and the third or fourth, if Occasion so require, in the Interspaces, which, fewer or more, are to be of such Compass, as leaving near a Finger's Breadth Distance between each other, they may surround the broken Limb, over the Dressings apply'd as afore-mention'd.



When I said the second *Splint* must lie opposite to the first, I meant not in its whole Width, but that a Part thereof should bear against the *Fracture*, as a Counter-pressure to the first: The third being so placed, where there is no more requir'd (which there seldom is if these are aright order'd) that together at an equal Distance, they may encompass the Leg, as above recited.

Next, passing under your first Tape in the Middle, whilst some other Attendant secures, with their Fingers, the *Splints* as you had placed them, you are to tie them close; and making a Bow-Knot, cut off the Ends of the Tape: Proceeding in like manner to make two other Ligatures above and below, which being finish'd, and your Pillow laid smooth, let your Extenders, who by this Time are willing to be releas'd, equally and gently sinking their Hands together, lay down the Limb thereon, with the great Toe still answering the Top of the Knee; when bringing the Sides of the Pillow close with three Tapes more, passed before-hand underneath at equal Spaces, tie over the same, having first placed a little quilted Pad hollow'd for the Reception of the Heel, which is a Part, by Reason of its Tendon long compress'd, as much complain'd of, sometimes more, than the *fractur'd* Parts themselves: And I have known not only Inflammation, but Mortification sometimes, to have ensued, for Want of such Provision and timely Oversight; which has created very much Disturbance to the Patient, and great Trouble to the Surgeon, to get whole again.

A Strap of Cloth is now to be cut, which we call the Bridle; and which, before the Ends of the Pillow are pinn'd, or otherwise fasten'd together with Tapes sew'd on for that Purpose, is to be placed with its Middle against the Sole of the Foot, and the

the two Ends interchangeably passed over the Top of the Instep, then pin'd to the Sides of the Pillow, for securing a good Posture of the Foot, from whence we judge somewhat about that of the *Fracture*.

On the Sides of this Pillow are laid the *Junks*, which with the Cradle we mention'd not among the *Apparatus*, because the Limb being now safely reposed, and the broken Bones secur'd, you have Leisure to provide these Necessaries, altho' they also ought to be at hand.

These *Junks* are made commonly of two small Bundles of Rushes, sowed up in Linnen-Cloath, of about an Ell long each, and as thick as the Small of the Leg: Their Use being to support the Sides of the Pillow, and to keep the same, with the Leg therein, from inclining to either Side.

Lastly the *Cradle*, which is to bear off the Weight of the Bed-Cloaths; being made of 3 or 4 semi-circular Hoops, let into two square Pieces of Wood, of a Yard long, somewhat wider at that End next the Knee, and narrower towards the Foot, of such Breadth as may take in both the *Pillow* and *Junks* aforesaid.

Instead of these, when I had much of this Business on my hands, I have wrapped up a couple of small Sheets, or two Table-Cloths, or, for want thereof, a sufficient Number of Towels, Napkins or the like, and rowling them up hard, placed them on each Side the Pillow, to serve as *Junks*: And to supply that of the *Cradle*, I thrust a Square through the Blanket at the Feet of the Bed, just over the Patient's Toes, fastening the same with a Tape or Piece of Packthread to the Curtain-Rod, which kept the Cloaths at such Distance, as to secure both Foot and Toes from being pressed

set upon thereby: Then bringing over the outward Covering, whether Rugg or Quilt, I fasten'd them in like manner at the Bed's Feet, to keep out the Cold.

I hope it will not be expected, that I should give any other *Specimen* of the *Apparatus* for, or Manner of reducing simple *Fractures* in general; since what has been already laid down will serve for those of the Thigh, as also for the Arm, whether above or below the Elbow, with little Variation; in this latter there being seldom Occasion to confine the Patient to his Bed, since by placing the small Pillow in a Napkin, reaching from the Fingers Ends to the *Cubit*, the Wrist is well enough supported: But if the *Fracture* is above the *Cubit*, as on the *Os Humeri*, the safest Way is for him to keep in Bed, at least for some Days, with a Pillow lying along the Outside of the Arm, for its steady Support, which at these times is not so well provided for, in the erect Posture, as by the *Horizontal*, in that below.

Having reduc'd your *Fracture*, unless you had bled your Patient before, it is very expedient, that you take off such Quantity as the Age and other Circumstances may allow, whereby to lessen the Afflux of Humour, and keep under the *Symptomatic Fever* usually consequent upon these Accidents, and more especially in some morbid or diseased Habits, also those *Fractures* which are attended with great *Contusion*.

As to his *Diet*, let the same be like that directed for wounded Persons heretofore, viz. *Panada*, *Water* and *Barley-Gruel*, *Chicken* or small *Mutton* and *Veal-Broths*, avoiding strong Drink and Wine, which Abstinence must be continued at least for the first Week, till the Fever and Fluxion go off; afterwards a greater Liberty may be allow'd, such



as Flesh easily digested, whether *Chick*, *Rabbit*, *Lamb* or *Veal*, to those used to feed well; as also strong Drink and Wine, but sparingly, to the Good-Fellows: By which a suitable Chyle may be generated, from whence a sufficient Stock of nutritive Juice, to supply Materials for that Expence of the same, thrown off by the Pores at the Extremities of the fractur'd Parts, for the Generation of *Callus*.

And here give me leave to observe, what I formerly remark'd, in discoursing of the true *Hernia*, that the Practice of giving strong *Jellies* of *Calves-Feet*, *Cow-Heel*, *Trotters* and the like, and the constant feeding upon these *Extremities Animalium*, is a doubtful Practice, being liable, by their viscid Particles, to obstruct the *Lacteals* and Pores they are to pass, before they are assimilated, especially at a time when no Exercise can be used for their farther Attrition, or grinding into such *Molecule*, as may fit them not only for Progression to the Parts, but to the Pores also where they are requir'd: Or in other Words, I think, these slimy and gelatinous Foods, thus constantly taken, not so well adapted, as by admixing between whiles, an agreeable Juice prepar'd by the Stomach, of the *Musculous* Parts, or Flesh it self of some of those Animals.

Besides their common Diet, by way of Nourishment, where the *Callus* is long in forming, our Authors sometimes prescribe certain Medicaments to be used, both outwardly and inwardly, unto some of which they are ready to attribute a peculiar Faculty of engendring the same: And among these, the Precedence, I think, is given to that famed *Caragmatic*, the *Ostrites*, called otherwise *Osteocolla*; of which the experienc'd *Hildanus* writeth thus, in his 3. *Cent. and 90. Obs.*

*Caragma-  
ties, among  
which the  
Osteocolla  
and its De-  
scription.*

“ In

“ In a large Champain and Sandy Ground, near  
 “ *Darmstad*, in *Germany*, I found many of these  
 “ Stones, some of them above, and others under  
 “ the Ground, the former lying exposed to the  
 “ Air, seem to loose much, if not all their glutin-  
 “ ating Property, by which they become brittle,  
 “ hard and whitish; whereas those taken under  
 “ the Surface, where I found them sometimes 2 or  
 “ 3 Foot deep, are softer, browner and friable, as  
 “ also more viscous and bituminous: But as the  
 “ Ground is Sandy where they lye, upon frequent  
 “ Showers falling; their Covering is in time wash’d  
 “ off, and they then lye expos’d above Ground,  
 “ where, by the Heat of the Sun, they are not  
 “ only whiten’d and made hard, but their Gluti-  
 “ nosity, as before observed, very much, if not en-  
 “ tirely destroy’d, having nothing but their terre-  
 “ strious Parts remaining: Some of them arise  
 “ from a Basis with Shoots, as Branches from the  
 “ Roots of Trees; some of them I found Solid,  
 “ others Fistulous, in which a soft, but blackish or  
 “ dirty Pith was observable, somewhat resembling  
 “ the Marrow of Bones:” From which our Au-  
 “ thor conjectures the first Hint might be taken of  
 “ their Bone-cementing Property.

The Accounts from *Matthiolus* and *Josephus Quer-*  
*cetanus*, agree also with the foregoing, viz.

“ There are found in that Tract of the *Rhine*,  
 “ which the *Germans* call *Bergstrass*, near the Town  
 “ of *Darmstad*, about two Miles from the *Rhine*,  
 “ certain Stones, &c. The *Germans* call them *Bien-*  
 “ *bruch*, for in 4 or 5 Days time, a broken Bone  
 “ is fasten’d and join’d together by their Use.”

Hist. 87. Now altho’ our famous Practitioner above-men-  
 86. tion’d, gives no great Credit to the vulgar Rela-  
 tions of the Vertues of these Stones, yet he assures  
 us, he had found great Service, as well from their  
 outward

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outward as inward Use, in forwarding the Agglutination of a broken Arm, of a very antient and decrepid Person, where he found the *Callus* loose at a Month's end: And that in a fractur'd Thigh of another Person, he was forc'd to leave off its Use, by reason of the super-abounding *Callus* occasion'd, as he believ'd, thereby.

To the first of these he gave daily 2 Drams of the following Powder, in a Mess of good Flesh-Broth.

*Rx. Lapidis Ossifragi five Osteocolle diligenter præp. ʒj. Cinnamom. Elect. ʒij. Sacchar. alb. ʒij. m. f. Pulvis tenuis.*

Twice a-Day he also used the following Liment.

*Rx Ol. Lumbric. ʒij. Ol. Gran. Junip. ʒij. Suc. Lumbric. ʒj. m. pro Litu.*

After which this Emplaster was worn upon the Place.

*Rx Empl. Vigonis ad Fracturas Ossium ʒij. Oxycroc. ʒss. Lapid. Osteocol. pp. ʒiss. Lumbric. terrest. in subtilis: Pulv. Redact. ʒj. cum q. f. Ol. Lumbric. f. Emplast.*

To the same End likewise, other Catagmatic Emplastres are prepar'd ex *Pulv. Rad. de Symphito, Bistort. Aristoloch. Ossium Human.* and the *Ostrites* aforesaid, made up with the *Resina vel Terebinth. ven.*

As to my own Opinion of the *Bone-Binder* in Cases of *Diarrhæa's*, or other Fluxes accompanying these Accidents, where the Texture of the Blood is



is weaken'd by Sickness, or where there is Colliquation otherways attending, and the nutritious Particles carry'd off either in profuse Sweats or Loosnesses, I look upon this Medicine as an excellent Agglutinative, or good Styptic, if it can be procur'd true and genuine, chosen by our Author's Advice from under-ground, and carefully kept from the Air; And I would recommend it to be given as above, with a Decoction of some of those *Vulneraries* we recited in our Third Section, discouraging, as I have already hinted, concerning *Hernia*.

But these Occasions do not often happen, that we should deviate from the common *Regimen*; and yet I have met with one so very remarkable upon this Account, that I shall think it worth while to inform you thereof.

HIST. 87. A Gentleman's Coachman, then of St. Hellen's Parish, within *Bishopsgate*, by a Kick of one of the Horses, had the *Humerus* broke off in the Middle, betwixt the *Cubit* and the Top articulating with the *Scapula*: Upon which, after the Reduction, I continued him in his Bed, and at ten Days end, finding all Things appear well for the Time, I dress'd up again with a mild *Cerate*, instead of the *Defensative* I had apply'd at the first Dressing, still persuading him to keep his Bed, yet granting a larger Liberty in his Diet: But at 3 Weeks end, whether from any Error therein committed, or getting cold in his Rising, altho' I rather think it was an Effect of his ill Habit of Body, or *scorbutic Discreasy* of the Juices of his Blood, he fell into a Flux of the Belly; which, notwithstanding all Endeavours by an *Elect. ex Cont. Ros. Conf. Fracast. Pulv. Rhei Torrefact. Coral. pp.* with the *Decoct. C. C. C.* for his Drink, and other Methods prescrib'd by his Physician, so prevented our Endeavours

vours to unite and confirm the *Callus*; that at 6 Weeks end, (a sufficient Term for consolidating the largest Bone in a humane Body) when we thought all safe, one Evening, as he was help'd off with the Waistcoat-Sleeve on that Side, it seem'd to him that his Arm was again falling to pieces: However, being still kept tight and close by the *Splints* and *Bandage*, he went to bed; and the next Morning, throwing his Cloaths over his Shoulders, in great Surprize came to my House, where I had no sooner loosen'd the Dressings, but I found plainly the *Callus* was entirely dissolved, the Arm swinging back and forwards, as if there never had been any Stay or Stability besides the Muscles.

I was indeed as much alarm'd my self, and did all in my Power to retrieve the poor Fellow's Misfortune, dressing up with a *Catagmatic Empl.* of the *Stypt. Paracels. Diapalm. ad Hern.* with some of the conglutinating Species melted down therewith, directing at the same time the *Pulv. Osteocol. cum Syr. de Symphito*, for some Weeks longer.

At length, finding all to little or no Purpose, his Master, Mr. *Prideaux*, sent him to St. Thomas's; where, after other ineffectual Attempts for his Recovery, I understood, that Mr. *Rydout*, whose Patient he was, whip'd off the useless Limb, in the Interstice of the broken Extremities, without more to do; and, healing up the Stump, dismiss'd him: His Master procuring for him afterwards a *Letter-Carrier's Place*, by which he was subsisted several Years, till his Death.

In ancient People these Accidents are less admirable: I remember I was once desir'd to look upon an old Alms-Woman, upwards of 80 Years, who, at 3 Months end, had a fractur'd Thigh as loose as at the first Day of the Misfortune, and continued so many Months, I think I might say  
Years,

Years, afterwards, complaining of no Pain, lying weak and feeble only as a Bed-rid Person: But in so young a Subject as the former, I must confess, I never observ'd the like Consequence.

We had here a fair Opportunity of trying the *Osteocolla*, which was also exhibited; as I was inform'd, in large Quantity in the House, but which, as other conglutinating and corroborating Remedies try'd before, was fruitless: The Flux he was at first seiz'd with, having so entirely dissolv'd the Cement, and wasted so much of the nutritious Juice, that the Blood being render'd poor, and deprived of its Balsam, the Extremities of the Bony Fibres now also grown rigid, and rendering those Particles unassimulable, *Nature* was unable to consolidate the same: So that an *Atrophy* of the Limb ensuing, the Surgeon had no other Trouble, than with his Knife to separate the useless Part from the rest of the Arm.

How far this singular Operation was justifiable I shall not question, who, for my own part, do not think it was Male-Practice, there being no Probability, after so long Time and so many ineffectual Experiments, of a *Callus* ever intervening, and the Hand being rather burthensome under the present Circumstances, than any way serviceable.

The Historian, or rather, (for so I think I may venture to call him) the *Tell-Tale*, *Pliny*, has several fabulous Stories concerning a sort of *Sponge*, found near the Waters of the *Alps*, which, if we may believe him, will do still greater Wonders, in few Hours consolidating the Ends of a broken Bone; but quitting this Digression.

When you have reduc'd the *Fracture*, and the next Day coming to view the Limb, if you find a small *Tumour*, both above and below your *Splints*,  
tis



'tis an Indication of your *Bandage* being rightly adapted; for if there appears none at all, 'tis an Argument the same was too slack; it being rare, even in the most simple *Fracture*, and the best Habit of Body, but that some little Tumefaction will necessarily arise, from the Contusion accompanying the Hurt; and the Ligature, tho' moderately strait, somewhat intercepting the Freedom of Circulation: However, this is easily discover'd, by the Looseness of your Roller, which must then, (tho' a very improper Time) be undone and made up tighter, at least the Splints over the same, for Security of the broken Bones, are to be ty'd faster together with the Tapes, till you come to undo all at your second Dressing, which at such times must be sooner than otherwise Occasion calls for.

On the other hand, when you find the said Tumour so large, either at the Top or Bottom, and the Folds of your Roller as it were buried in the same, so that there appears Danger of a *Gangrene* by the Stagnation, you must not only forthwith loosen the Tapes of your Splints, particularly when they have promoted such Tumefaction by their Tightness, but with your Scissars, strong enough for that Purpose, cut through the Folds of your said Roller, especially at the Top and Bottom, where they are found to gird upon the Flesh: Afterwards embrocating *cum Ol. Rosar. vel Ungt. Sambuc.* and fastening the former, but more gently, with your Pillow as before, visiting your Patient again at Night, or at farthest the next Morning; when if you find the Swelling somewhat relaxed, or not to encrease upon you, all may go well as yet; but if the same happen to be enlarged, with Vesications or Blisters round about, your Patient beginning to complain of a Numbness throughout the Limb, you must immediately let all fly, taking

Care however to secure as steady a Position of the Limb as possible, unto which you have now given such Liberty, embrocating all about as before, but without disturbing or moving the same; and if there be *Vesications* let them be snip'd, dressing them up with your *Digestive*, and either rolling up again more easily, if the *Fracture* will allow so early raising up or moving the Limb, or contenting your self with your *Cloth-Compresses*, and your *Splints* ty'd close for a few Days, till the Symptoms remit; or, which may be more convenient, changing your first *Bandage* for the *Eighteen-tail'd One*, (to be describ'd presently) which at such times, where there is Necessity for a frequent Inspection of the Member, is full out as necessary as for the *Compound Fracture*, giving the least Disturbance to the broken Bones.

But when your Patient remains easy, and the Bandage such as neither straitens so much as to impede the Circulation, nor is yet so loose as to hazard the starting of the fractur'd Extremities, having daily a watchful Eye upon the Limb, and continuing your Embrocation above and below the Binding, the Tumour still so requiring, being also satisfy'd, that your Bones were at first rightly placed, or conjoined in the Reduction, you need not be in haste to open or take off the Plaister, till the *Callus*, beginning to form, will suffer more safely the raising up the Limb, at your second Dressing, which, however cautious or careful you may be, will give some Trouble or Disquiet thereunto; and therefore, upon these Regards, or under the present Circumstances, altho' the Patient may be perhaps importunate for the same, as fancying he may thereby be forwarded in his Cure, and otherwise neglected; yet when I have told him it was Rest only must effect the same, and that by the too sudden

sudden raising the Limb from its Support underneath, there might be Danger of undoing our Work, I have protracted this second Opening at least for a Week or ten Days: Much longer I think it should not be delay'd, lest some Bearing or Protuberance happening by the starting up of the Bone, and the *Callus* beginning now to stiffen, it will be more difficult to rectify this or any other Error committed, since, or over-seen at first; and indeed, if by any Accident of Convulsion or Starting, especially in Sleep, which is customary thro' the disturb'd Phantasy at such times, or by some Unruliness of your Patient when awake, you have any Jealousy of such Misfortune fallen out, it will not be safe to defer this Opening so long, but after 3 or 4 Days, under these Conditions, it may be requisite for you to supervise your Work, diligently and carefully to remove your first Applications, and, after strict Examination, to rectify what you find amiss, lest *nunc, aut nunquam*, should be the Time of your so doing, or in the which you are to make a sound Man or a Cripple.

The *Apparatus*, for your second Dressing, is little differing from that at first, unless that there are fewer Things now wanted; the same *Compress* and *Bolsters*, *Splints* also and *Tapes* serving again; nor have you always need of the *Posca* or *Oxycratum*, but the *Roller* which was then dip'd therein, and thereby grown stubborn, or happening to be clip'd for relieving the Parts tumify'd, must be chang'd for a fresh one; and your *Defensative* for a *Cerate* of two Parts, *Diapalma* with one of the *Stiptic. Paracels.* adding a little *ad Herniam*, with which having dress'd up as at the first Time, you are to defer your next Opening, as you see Occasion, for a Week or ten Days longer, if not twelve; when your *Cerate* may be still warmer, especially in cold



Weather, of equal Parts of the said Emplaſters, or in cold Complexions and antient People, two Parts of the *Stiptic*. one *Diapalm*. and *ad Hern.* as aforeſaid: In proportioning which, I would always adviſe, that you have regard to your Patient's Temper or Habit, either hot or cold, or dry and moiſt, as well as Seasons of the Year; otherwiſe, if you keep the ſame conſtant Method, you will meet with thoſe whoſe Skin will not bear the leaſt Proportion of the *Gums*, without bringing forth a Heat or Puſtules, attended with unſufferable Itching, and oftentimes Excoriations, at which Times, or in which Conſtitutions, I have been forced either to continue the *Deſenſative* through the Courſe of the Cure, or mixing a very ſmall Quantity of the *Paracellſus* Plaiſter therewith, as I found they could diſpence with the ſame.

The Summer and Winter Seasons you will find alſo to require a various Application: In the very cold Weather, thoſe Perſons bearing that *Cerate* which they cannot ſuffer in the hot.

Time of  
Conſine-  
ment in  
Fractures.

As to the Time of conſining Perſons to their Beds, under theſe Circumſtances, there can be none precisely limited, ſo much depending on the Condition of the *Fracture*, the Season of the Year, the Age of the Patient, together with the Weakneſs or Strength and Vigour of Conſtitution, with ſome other Circumſtances, as we obſerved in our Account of the *Prognoftics* of theſe Accidents in general: So that 5 or 6 Weeks will be found as ſhort a Time, in ſome untoward Hurts of this Kind, and in ſome aged and diſeaſed Patients, as 3 or 4 in the ſimple *Fractures* of the more youthful and robuſt or ſtrong; a *Callus* growing as firm at the Month's end in the latter, as at 6 Weeks, or perhaps 2 Months, in the former; ſo that I always eſteem'd it an Error, if it be one, on the right Side,

Side, to keep my Patients in Bed, how well soever Matters might appear, a Week, at least some Days, beyond the Month, than to take them up so much short of that common Stage; and however some would complain of hard or unkind Usage on this Account, yet in a *Fracture* of both *Focals* of the Leg, I scarce ever suffer'd them (tho' perhaps they have been allow'd to sit up therein 3 or 4 Days sooner) to rise out of Bed, unless at 5 Weeks end; or if the Thigh, at six, the soonest; in some Cases I have prevail'd for their Confinement therein a Week longer, and I am satisfy'd they far'd the better for so doing.

To ease their Backs upon Occasion, and to give Liberty to the Bed-Pan, I generally order'd a couple of strong Hooks to be drove into the Joices over-head, whence a Cord or Rope being let down through the Tester over his Breast, and a Stick fasten'd a-crofs, with his Hands upon the same, he has been able to raise his Body upon such Occasions.

But farther, if any Accident, as *Phlegmon*, *Erysipelas*, *Gangrene* or *Sphacelus*, which are sometimes occasion'd by the *Fracture* it self, at others by the Neglect or Ignorance of the Surgeon, not obviating the same in time, should happen to fall out, you are to proceed as in those Cases we have directed in our Discourse of *Tumours*; placing the Leg in the same Cradle, and for the readier coming with your Medicines at the Part, using also the like *Bandage* as for the *Compound Fracture*, to be describ'd next.

The *Oedematous* Swellings accompanying these Casualties, at the first sitting up, or presently after upon setting the Foot to the Ground, usually wear off after the wonted Exercise continued for some time: However, where there is a Redun-

dancy of the pituitous Humours heap'd up in the Blood, the *Callus* being fully confirm'd, the same are gently to be purged off with some of the *Phlegmagogues*, directed heretofore for *Oedema*: embrocating, or rather bathing, with the *Camphorated Spirit* diluted with *Aq. Calcis*; keeping to a strict drying Diet, and, if there be found Occasion, fitting the Limb with a *Strait-Stocking*.

### Of Compound Fractures.

Of the  
Compound  
Fracture.

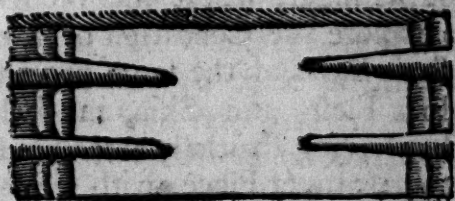
We come now to the *Compound Fracture*, in the vulgar Acceptation of the Word, in which the *Apparatus* is different from that of the *Simple One*, in as much as that you have also a Wound to look after and provide for, in such Manner also as may give the least Disturbance to the broken Bones.

Wherefore having a Dish ready, as before, that may hold all your Dressings, and examin'd the Condition of your Wound, as also that of your *Fracture*; first let your dry Dressings be prepar'd of soft Dossils or Pledgits of Lint, to lye next the Bone where the same is like to remain uncover'd, whilst others of both Sorts are armed with your Digestive *ex Terebinth. cum Vitel. Ov.* or the Liniment of *Arceus*, no *Basilicon* being allow'd near a bare Bone, on account of its Unctuousity or greasy Nature; also a Pledgit of the same, large enough to cover the whole Surface of the Wound, with a Panniken, in which some *Bals. Tereb.* and the aforesaid Liniment may be melted down together, wherein to dip your Dossils as there shall happen to be Occasion: The next your *defensative* Plaister, as for the simple *Fracture*, large enough to comprehend the Limb, as formerly prescrib'd, thro' which, where it lies opposite to the Wound,

you



you are to cut a Hole big enough to come at the same, at the Time of dressing, without removing the rest, or disturbing the *Fracture*: Then your Cloth-Bolsters also, as before; but now observe, that instead of your single or double-headed Roller, you are to take 3 Pieces of old Cloth, of like Sort with that they were cut out of, all near of the same Size, the outermost being somewhat the longest, about half a Yard in Depth, and 3 Quarters wide, more or less in Proportion to that of the Limb, in which, as they lye exactly spread over each other, you make a Slit with your Scissars in two several Places, and at equal Distance, on both Sides opposite each to its Correspondent, and so far towards the Middle as to leave little more than a Hand's-Breadth undivided, where the Back-Part of the Leg is to rest: For your easier Conception whereof, I have here delineated the Shape of one of them, which, from so many Ends remaining, *viz.* 9 on each Side of the 3 Cloths thus laid upon each other, is call'd by some the *Eighteen-Tail Bandage*.



The *Splints*, where there is Room for them, with the *Tapes*, as before: The *Pillow* less and thinner, because in the Room of the common Cradle, the same is to be put into a Case or Box, in which the Leg is placed, with the two Sides or Wings to be let down at Pleasure by their Hinges, as does the Foot-Board to keep off the Cloaths, and this for the easier coming at the Wounds, as to which still

farther Improvement may be made to answer the several Exigencies, as the ingenious Artist may direct.

For a *Compound Fracture* with a large Wound on the *Gastrocnemius*, I once order'd a double-bottom Board for such a Box, of a Piece of thin Wainscot, in which a Hole was cut so large, as that thro' the same I could apply my Dressing to the Wound, which Board was kept flung with Tapes, and by means of a Pulley above, drawn up at the Time of Dressing to such Height as was requir'd, and after let down again into the Case, without the least Disturbance to the broken Bone, which it must otherwise, how carefully soever manag'd, been subjected to; but proceeding.

When you are thus furnish'd for the Work, and your Patient laid in his Bed, where, upon these Accidents, he is sometimes like to continue for several Months, you are, as before, to order your Extenders gently to begin their Work, for fear of exciting Convulsion or other dangerous Symptom, and the Limb being on the Stretch, you are with your Finger, where the Wound admits, carefully to explore the Condition of the *Fracture*, or finding some Parts of the same protruded thro' the musculous Flesh and Skin, in such manner pointing, that having fruitlessly attempted to return the same into its proper Place, with a small *Cupital*, or the Watchmakers *Saw*, you must take off such Fragment thus lying in the Way, replacing the rest.

Farther, if any Parts of the Bone are so shiver'd as to lye loose in, and pricking of the Flesh, you are to take them out with your Forceps, finding they will give way, and may be easily extracted; otherwise if the Smalness of the Wound be the Occasion that you can neither introduce the

Part protruded, nor draw forth those separated within, you are to dilate the Wound, in such Manner as may facilitate either Operation.

And thus, when by the due Care of the Extenders, together with your own, you have replaced the *Fracture*, you are next and immediately to secure the Bones, which shall after happen to be exposed to the same, from the Air, with your dry Lint, filling the rest of the Wound with your Digestive, where the Flux of Blood is inconsiderable; otherwise some *Stiptic* Application, as the same shall require: Then encompassing the Limb with your *Defensative*, with the Perforation therein against the Wound, your *Bandage* before orderly plac'd underneath, upon the *Pillow*, let the Leg, where there was Necessity for raising it up, be gently laid down: The Extension not yet entirely remitted, for Security of the Bones in their Places, whilst you are dressing up, and having fix'd your *Bolsters* on each Side, you are to bring one of the lower *Tails* overthwart, tucking it a little under by way of fastening, on the Side opposite; at the same time take up its Correspondent, and bringing it over the contrary Way, fasten it in like manner where you took up the first; then proceed to the Middle one and its opposite as with the former, and so to the uppermost, when coming down again take up the lowermost Lappit of the second Cloth, and having thus dispatch'd all 3 in that Rank, conclude with those that are undermost or nearest to the *Pillow*, still observing as you bring each of them a-cross or over, that you stay with the Fingers of your other Hand, that Side of the Cloth you are pulling from, so that the undivided Part thereof may keep the same Situation underneath, or remain in the Middle, straining each Fold,  
but



but with great Caution, before you make the Tuck.

When you have now finish'd your *Bandage*, your *Splints* are to be apply'd in such manner that the Wound may be the least offended, either by their Sides or Extremes.

Lastly, the *Pillow* must be ty'd round with the Tape or Filleting, before also convey'd under the same for such Purpose, and the Wings or Sides of the Case, as well as the Foot-board are to be raised, that the inclosed Member may rest secure from the Coverings of the Bed: The chief Care being now to keep all still and quiet, with the *Fracture* unmolested, tho' perhaps you are daily obliged to inspect the Wound, which being digested, you must hasten *Incarnation*, where the *Periosteum* is not too much torn, or that the Bone, by being long exposed, is not also tainted or corrupted.

But if you find an *Exfoliation* unavoidable, or that some Part must of Necessity come away before you can cure the Wound: Let your dry Dressings, as at first, be still continued to the same, as, after Digestion, to the Wound it self, for avoiding of a *Fungus*: Proceeding now, as we have already directed for the *Carious Ulcer*, but with this Difference, that before your *Callus* is formed, none of your strong *Desquamatories*, neither yet the *Cautery*, are to be apply'd, for fear of Injury to the same, or exciting some new Symptom, as *Fever*, *Inflammation*, *Spasm*, or the like: But I have already acquainted you, when speaking of the Wounds of the Head with a bare *Cranium*, it does not absolutely follow as an unavoidable Consequence, that in others, happening after this Way to be uncover'd, there must ensue a *Desquamation*; since I have seen several, which after Reduction, being defended by the musculous Flesh, and artfully

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artfully manag'd, to have united without *Scaling*, where the Wound has incarn'd and firmly cicatrised, with little more Trouble than if the Bone had receiv'd no Injury.

But where it falls out otherwise, or the Case is such as that by means of great Loss of Substance, *Abscess* or *Apostemation*, the Bone lying long expos'd, is tainted thereby, you can't expect at such Times so easily to accomplish the Work: At which Times, dressing as just now directed, you must wait till Nature, separating the corrupt from the sound Parts, throws off the same, when the Wound with little Difficulty will after, if nothing obstructs, admit of healing.

As for what regards the *Regimen*, in respect of the *Non-Nat.* but more particularly *Diet*, you are to be stricter than you were in the *Simple Fracture*, or as we directed for Persons dangerously wounded, so here likewise it must be *tenuis*, if not *tenuissima*, at least for some Time; forbidding *Flesh*, *strong Drink*, and *Wine*, in order to prevent the Flux of Humours, to which, thro' the great Pain attending, these Hurts are very prone, and by which, *Fevers*, *Inflammations* and *Abscesses* are stirred up, one after another at sometimes, to the great Disturbance of the broken Bones, Disquiet to the Patient, and Vexation of the Surgeon; all which are likewise frequently owing to some small Fragments or Shivers of Bones, irritating the Fibres, which, as before remark'd, at the Time of Reduction, are carefully to be inspected and removed,

### Of Fractures with Comminution.

Fractures with Comminution of the Bone, either with or without a Wound, when the same are very great, and the Bones splinter'd, or together with the

Fractures  
with Com-  
minution of  
the Bone.

the Flesh crush'd to pieces, as by the Wheel of a loaded Waggon or Cart, the Fall of a Pipe of Wine, Hogthead of Sugar, or the like, slipping from the Pullies, or out of a Crane, as sometimes happens on the Keys by the Waterfide, or Merchants Ware-Houses: These Cases are always of the most dangerous Consequence, and 'tis but seldom that there is any great Prospect of saving the Limb: Wherefore it will behove you, whilst the Accident is fresh, or before the Patient is tir'd out with Pain, or thrown into Convulsion, to call in some of the antient Masters, or other judicious Persons, as the Rules of that worshipful Company have appointed, with whom to consult; and perceiving a Necessity, as we told you, when speaking of Wounds where great Portions of the Muscles were contus'd, mortify'd, or torn in a manner quite away, to hasten *Amputation* or cutting off the Limb: But if you have a good Habit of Body to do with, and the Splintering not very great, nor the fleshy Parts too much contus'd or lacerated, if there be a Wound, you may probably thro' the same remove such Shivers as are most likely to create Trouble, lying in the Way, as we have already observed: Or if not, finding any pointed ones under your Fingures, pricking against the Flesh or Skin, you may make one, to disengage them; afterwards as artfully as you can replacing the rest, and reducing them into as good Figure as the *Fracture* will allow, proceeding as we have advised for other *Compound* Ones: When it may fall out, even beyond your own and your Patient's Expectation, a *Callus* intervening after sometime, cements the broken Parts; and however ill shapen the Leg may happen to be, as, do what you can (where Apostemations ensue one upon another requiring to be dilated, by which the fractur'd Bones



are disturbed, and render'd foul, or great Pieces thereof are forced to be removed) you can't sometimes prevent: Yet will the same for the most part, when assisted with Art, be better able to bear a Share in supporting the Body, than a wooden one.

A poor old Man, thrown down by a Horse, as he was crossing the Kennel, had the Wheel of a loaded Waggon passed over his Leg, which in a manner shiver'd the Bones to Pieces, several pointed Particles lying out of his Stocking.

Being from Home at the Time of this Accident, two others had been sent for, who, either doubtful how they were to be satisfy'd, or dismay'd at the sad Object, withdrew and declin'd meddling: Upon my Return, some reputable Persons came to me, to inform me of this Misfortune, and desire my Assistance: Upon which I took with me one of the young Surgeons who had been there some Hours before, and examining the Nature of the *Fracture*, gave instantly my Opinion that the Case requir'd immediate Amputation. Yet, considering his Age, above Sixty, I could give little Hopes of Success from the same; and was therefore, as in all such doubtful Cases I have been, willing that the Patient should rather desire it of us, at least give his hearty Consent thereto, after his Case had been justly stated: But the old Gentleman earnestly begg'd, if there was no other Remedy, that we would let him die of his broken Leg, or the Symptoms likely to ensue quickly upon the same, than to have so poor a Chance, as he term'd it, we could warrant of his surviving the Dismembering. Upon which, I then propos'd his being sent to one of the *Hospitals*; but that being scarce practicable before next Day, and the same Persons interceding that I would engage therein,

in, believing also it would not be a Work of more than two or three Days, I order'd my Assistant to get ready the Customary *Apparatus* above described: Whilst with my Fingers, as the Leg lay upon a Pillow in his Bed, I took out of the Wounds several loose Splinters; after which directing a gentle Extension, as the Limb still lay along, for on the least raising up it fell all to Pieces, I placed the Remainder, with both my Hands, in as good a Posture as I could, but perceiv'd yet a large pointing Portion of the *Tibia* thrusting out, (which I believe was at first owing to a Want of due Care in his Removal from the Place he got his Hurt, to his Habitation) would not be depress'd, I was therefore forced to saw off the same before I could put the Member into any tolerable Figure.

Having done all I could in the Reduction, I dress'd up the Wounds with warm *Liniment*, large Pledgits of Tow, first faced therewith, being dipp'd in some more of the same melted Medicine, quicken'd with a small Portion of the *Ol. Tereb.* and over all a *Cataplasm* of *Theriaca Lond.* then bringing over the *Tail-Bandage*, and fastening the *Splints*, as the shatter'd Limb would allow, I raised the Wings of the Case, together with the Foot-board, which was before we began, placed ready under the Pillow upon which the same was extended; and then gave Instructions to a Woman provided to look after him, how to order other Matters relating to his Nourishment, and took my Leave in Company with my Assistant, whom I had engaged should attend me so long as there was Occasion.

The next Day we met, provided with warmer Applications, as the *Spir. Vin. Camph.* an *Elixiviat. fortis Tinct. Myrr. cum Ol. Tereb.* when coming to the Bed-side, I perceiv'd the *Tenure* or *Rhythm* of his

his Pulse, to my Surprise, but little varying from that in a sound State, a free Breathing, little Fever, but a gentle *Diaphoresis*, neither Intermision in the Pulse, Twitch or Tremor on the Nerves or Tendons, nor yet the least Appearance of *Delirium*, altho' he had slept little or nothing since we left him, which he said was owing to somewhat pricking him between whiles, and which, if he fell into a Slumber, made him start.

When lifting off the Cloaths to take a View of the Leg, I perceiv'd both above and below the Bandage very considerably swell'd, but with a kind agreeable Warmth upon the Foot and Toes, where I expected we should have found a *Gangrene*, and proceeding farther, taking off both outward as well as inward Applications, the Wounds, though crude, appear'd with no discouraging Aspect: There was one pretty large, made seemingly by the Head of a great Nail in the Cart-Wheel, on one Side of the *Tibia*, with several others on the opposite, occasion'd either by the Bones themselves, the Leg lying on an Hollow, or by Compression against some rugged Stone in the Kennel; all which having now again examin'd with my Fingers, to feel if I could discover any angular Parts, which by their *Stimuli* might have occasion'd the *Spasm* complain'd of the Night past: But finding none of that kind, nor indeed any other, so entirely loose as to give Countenance to their Removal, I again cover'd all any way expos'd, with my dry Dressings; laying on three or four Stuphs exprest from the Fomentation, whilst the other were preparing: After filling up the Remainder as at first, with suitable Dossils, first arm'd with *Liniment*, then dipp'd in a hot Mixture of three Parts the said *Liniment*, and one of *Tinctura Myrrhæ cum tantillo Ol. Terebinth.* as I believ'd the Sense of the Part would admit,



mit, covering these with larger Pledgits of Tow, faced with and dipp'd in the same, over all, the *Theriaca* spread Plaister-wise, and laid on hot: Lastly, the *Tail'd Bandage* and *Splints*, but gently fasten'd, to support the Limb.

The third Day the Foot appear'd more swell'd, with some *Vesications* about the Ankle, threatening a *Gangrene*, also a vast *Echymosis* quite up to the Knee, with great Gleet from the Wounds. Wherefore snipping off the little Bladders, and adding still more of the *Tinctura Myrrhae*, as well as *Ol. Terebinth.* to the Digestive, dressing up in all respects as before, having first well fomented with a larger Addition of the *Spir. Vini Camph.* and applying the *Theriaca* on the Outside scalding hot: His Pulse I found now somewhat intermitting, and his Head disturb'd for want of Rest.

The fourth Day, I perceiv'd large Portions, not only of the Skin but the Muscles also, to turn putrid, yet with some little Appearance of Digestion round the Edges; his Pulse rather mending, and his Head better settled.

Continuing the same Applications three or four Days longer, our Digestion much increased, the *Sloughs* beginning to separate, and casting off; the *Tibia* in its undivided Part above, lay bare on the Inside the Length of two Inches, which we dress'd with Pledgits of Lint dipp'd in, and after express'd from the Tincture aforelaid: For the better Digestion of the *Ulcers*, and correcting the Putrification, I strew'd on the *Precipit. rub.* then cover'd them with Dossils wrung hot out of the melted *Linniment* and *Ol. Terebinth.*

Thus proceeding daily, for about a Fortnight, the threatening Symptoms of *Gangrene* and *Mortification* seem'd to be overcome, and we had now so large a Quantity of Matter discharg'd, as on  
the

the other hand was likely to exhaust our Patient's Strength, before we could have a sound Basis to heal upon: So that I could give little Encouragement as to the Event, or (as I often exprest my self to his Friends in his Hearing) other Prospect at best than that of his being a miserable Cripple, in Expectation of his listening to an *Amputation* in Time, before he was too much wasted: But understanding the Danger of his Limb mortifying was now over, he would by no Means hear of parting therewith; so that to ease my self of the tiresome Work all I could, I now left him pretty much to the Care of my Assistant, visiting twice, and sometimes only once a Week: When, after 9 or 10, several small Fragments of the Bones casting off, and working themselves out, the Discharge began to lessen, and the Patient, tho' much emaciated by his strict Confinement, (having never once been moved from the Place he was first put in his Bed) yet very hearty, and taking his Nourishment of good Broths, Meats of easy Digestion, and a Draught of strong Beer he had been accusom'd to, once a Day.

At three Months End, that Part of the *Tibia* which had lain exposed, not moving, nor tending to a Separation, I directed my Assistant now and then to give it a light Touch of the *Cautery*, to promote the Exiccation thereof, and consequently a *Desquamation*, at least of the outward *Cortex*, if not deeper tainted: From which, and the dry Dressings that were now every where apply'd, after 16 Weeks, or 4 Months Time, instead of Scaling, a large Piece of the said Bone began to move; and a Month after that, was so loose as to be taken out; the Leg from this Time daily and visibly shortening, notwithstanding all Endeavours to maintain a good Position of the same: However, finding nothing more to come away,

the *Callus* at length growing so firm as to bear, (altho' with Caution,) the stirring of the Limb, at half a Year's End, he was lifted out of Bed, in which he had sat up several Weeks before, and well content he had compounded for his Life under so severe an Accident, with an ill-shapen Leg, or one much shorter than the other, which by the Help of a Cork Shooe, and a Crutch under his Arm, a Stick also in his other Hand, enabled him to walk about, living after to be Eighty Years of Age; and in about two Years from the Accident, laid aside his Crutch, walking only with his Cane, or rather under-hand Crutch-head Stick, with less Trouble than must in Likelihood have attended the Stump Leg.

Yet do I not think this Instance sufficient to stand a President in the like Cases; for if there had not been in this, an excellently well constituted, or as we sometimes pronounce it, an *Athletic Habit*, it had been, in all Appearance, impossible to have kept off a *Necrosis*, or absolute Extinction of the Natural Heat: Or, missing this, yet by *Abscesses* or *Apostems* ensuing one upon another, very frequently at these Times, the Odds were exceeding great, that by so large and long continued a Discharge from thence, together with the Fatigue of Pain, he had not sunk under a *Marasmus*.

It was indeed a Work very laborious to us, as well as to him; but having began, tho' at first in Expectation it would be very short, yet meeting after with so hearty an Old Man to deal with, and having an Assistant to give constant Attendance after the first Week, I was the rather encourag'd to go on, and at leisure Times to inspect the Work, till it was concluded.

Upon his first setting the Limb to the Ground, after sitting him with his Shooe, a pituitous Tumour,



mour, or *Oedema* fell down thereon, as well as on the Leg in general, incommoding him for several Weeks: But putting on a laced Stocking, and filling the Inequalities thereof with Bolsters of Cloth, that we might render the same more serviceable, and directing a proper *Regimen*, suited to that Tumour, he got the better thereof; and gathering (as we say) Strength to stir more about, after some Months it was entirely dissipated.

To this Patient, after the Removal of the loose Bones, and the Digestion of the Wounds, for the farthering of *Callus*, I gave good Store of *Osteocolla* with Comfry Roots boil'd in his Broths: But whether they, by supplying a proper *Gluten* to the Blood, as in Reason they might be suppos'd to do, or that the latter of itself, from its own proper Balsam, furnish'd the Cement, I say not absolutely, tho' inclining to the former Opinion, so well attested as the same has been by the most consummate Artist of the Age in which he liv'd.

There is one very great Difficulty attending these *Fractures*, and that is the shifting the Bandage without giving Disturbance to the broken Bones: For altho' it is never so well contriv'd to be drawn away, yet it cannot be done, altho' with the utmost Heed and Caution, but with Hazard: And as at these Times there are usually great *Gleet* for the first Days, and after Digestion, or in Case of Apostemation, as large Discharge of Matter, there will be a Necessity once in three or four to change the same; at which Times having fresh Cloths indented as the first, spread out smooth upon each other by you; whilst one supports the Heel, another gently grasping with both his Hands a little below the Knee before you dress up: Having removed your *Splints* on the Outside, and untuck'd the Tails of your foul Bandage, let one on each

Side the Leg, taking hold of the upper and lower Lappits of that lying next the same, raise leisurely so far that a fifth Person may, pressing down the Pillow with one Hand to facilitate the Work, with the other draw from under him the two lower, at the same Instant clapping into their Place the 3 Tails of the fresh Bandage thus evenly laid, whilst some other Person on the Side opposite, pressing the Pillow as before, pulls them so far as to lodge the undivided Part in the midst; this done, the Leg is leisurely again rested, and whilst held steady on each Side, together with the fresh Bandage likewise, especially on that you are to draw from, the remaining foul Piece is with the utmost Care and Caution to be taken away also from underneath, when you may dress up again as formerly.

I generally at these times, to save the Linnen all I could, and prevent the too frequently shifting, used Wads of Tow, so placed about the Dressings, as to imbibe some Part of the *Gleet* and *Matter*, and to renew them daily for this Purpose.

Accidents of this Nature are likewise common on board a Ship, where, by discharge of their Guns, loaded either singly or with Chain-Shot, in their Engagements, large Splinters whereof are sometimes forcibly impell'd into the Limbs, shivering and miserably tearing and confusing the Fleshy Parts; at which Times the want of Convenience, were it practicable to defer the Operation, puts them speedily, amidst the Hurry, upon dismembring, and happy too at sometimes for the Patient, who must otherwise perhaps undergo a longer continued Torture by the Motion of the Ship, and the want of those Necessaries to be had at other Times, and in other Places; or deferring it now, it may probably be enterpris'd after  
at

## Sect. VII. Of Fractures of the Joints.

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at a more unfit Season, and too late to save his Life.

### Of Fractures of the Joints.

The nearest of kin to these are the *Fractures* <sup>Fractures of the Joints.</sup> which befall the *Joints*, upon the Heads or Extremities of the Bones, and are abundantly worse than the common *Fracture*, or that in the *Interstitia* thereof, as we hinted in our general *Prognostics*, being liable to greater Fluxion, from the *Tendinous*, *Nervous* and *Ligamentous* Substances therein affected, as also to a Stiffness and Immobility of the *Juncture*, by reason of the *Callus* falling in between, and forming a Sort of *Anchylosis*, more especially where the Limb is kept upon a Flexure, as that of the *Cubit*: The very Confinement also after these Misfortunes, or the keeping the Limb in a different Posture, viz. that of Extension, as on the Knee, will at some times stiffen the Joints by the *Mucilage* grown hard and dry, which is separated by the Glandules thereof, for their Lubrication and freer Motion, and that to so great a Degree in the Middle-aged, but more particularly in ancient People, notwithstanding all Endeavours to prevent this Inconvenience, by emollient *Embrocations*, that it is long time before a good Use of the Limb is recover'd: How much more difficult then must we expect it, where together herewith the glutinous *Callus* has diffus'd it self, and as it were lock'd up the Joint?

In the Management of these there is no Room for *Splints*, instead of which your *Bolster-Compresses* of Cloth, before-hand shaped to the Parts, then dip'd in *Oxytrate cum alb. Ov.* and exprest, are to be laid on each Side over your *Defensive*, with one larger of the same kind that may comprehend the



Joint, and the double-headed Roller, which at these times is preferable to the single: When raising the Member gently both above and below, the Extension is to be made as formerly observed; and having enquir'd into the Condition of the same, the Bones, with the Palms of both your Hands, are to be carefully replaced; when your *Defensive* and Cloth-Compresses are to be laid on and adapted, the Middle of the Roller being now brought under the Joint, with each of its Ends rolled up tight; after which, bringing one of them to the Right, and at the same time passing up a little higher to the Left with the other, you proceed with one and the other contraryways with the several Circumvolutions, till the Whole is taken up, by which means you will more regularly compress the distorted and broken Bones, and prevent their starting out of their Places, than if the *Bandage* was still made the same Way.

When you have after this Manner reduced the *Fracture*, it will be necessary you should make a suitable *Prognostic* of the Event, I mean the Hazard there may be of a stiff Joint; to obviate which all you can, so soon as ever the *Callus* will allow the stirring of the Limb, having for several Days before lubricated the *Tendons*, and all round the Joint, cum *Ol. Lumbric Ungt. Dialth. Axungia humana*, and the like, you may, whilst with one Hand underneath you gently stay the Joint, with the other as easily bend the Limb below; by which repeated Practice, if you gain never so little at a Time, yet by daily pursuing this Method, you will find you may get farther ground upon the Flexion,

If the Elbow, you must in like manner gradually attempt the Extention, and the Rigidity, Stiffness or Immobility still continuing, the said *Callus*, as before taken notice, being thoroughly confirm'd,

you

you may suffer him to lift or carry a Weight sometimes in the lame Hand; suitable to his Strength, and such as the Case shall require: After which, still *embrocating* as before between whiles, particularly going to Bed, let him accustom himself when warm therein, to be often bending and extending the Arm as he can suffer without Pain.

These Methods failing, together with the Bullock's Paunch, into which the stiff Joint, where it can be done, is introduced for several Days, and continued whilst the Heat remains, the last Remedy is the *Bituminous Waters*, such as those of *Bath*, where, besides the going into the same, the Pumping them on the Part very frequently recovers these maimed Limbs beyond most others: But here also you must beware you use them not too soon, lest the *Callus* not being perfect, instead of your expected Relief, you meet a farther Mischiefe, by loosening the same, which I knew befel a Gentleman I was after concern'd for, from his too early Resort unto that Place.

### Of the Fracture Length-ways of the Bone.

The next we shall observe to you are those *Fractures* which are made *secundum Ossium longitudinem*, Fractures Length-ways of the Bone. and here you want not so great Extension, nor yet any other Compress than the two *Side-Bolsters* over your *Defensative*; also the double-headed Roller after the Manner we directed before, in those of the Junctures, which I think at these Times also more serviceable than the single, as conjoining the two Sides of the divided Bone, both to the Right and Left, more exactly together than if made only to one of them.

But this Accident I have formerly acquainted you does not often fall out, at least that I could

fully persuade my self: I must own, that I have at some Times suspected a *Fissure* Length-ways of these Parts, where I have observ'd the Patient complaining thro' the Extent of the Limb, as it were in a strait Line, of grievous Pain, and from whence he has been long time after the Accident, disabled from setting the same to the Ground, or in the least to bear thereon: Upon which Account I have confin'd him, dressing up as a *Fracture* with good *defensative Bandage* and *Splints*, as aforesaid: When after Recovery, and beginning to walk about, I once discover'd a manifest Fulness the whole Length of the *Tibia*, with a rugged Inequallity throughout, like that of Soder pour'd on a Crack in a Leaden-Pipe, which doubtless was the *Callus* intervening and filling up the Clift.

### Fractures of one *Focil* only.

Fractures  
of one *Focil*.

It frequently falls out, where there are two Bones in the Limb, as below the *Cubit*, the *Radius* and *Ulna*; below the Knee, the *Tibia* and *Fibula*, called otherwise the greater and lesser *Focil*; that one of them may be fractur'd, the other remaining whole; which I have met with oftener in the Arm than Leg, as being more in Harms Way, by Blows and other Accidents occasioning the same, altho' by like Force or Violence first impel'd against the Leg, we sometimes find the *Fibula*, or lesser *Focil* broken, whilst the greater or *Tibia* stands its ground, and is able to support the Body in walking, tho' perhaps painfully and lamely many Paces after the Hurt receiv'd; which Bone I think can very seldom escape upon a compleat *Fracture* of the *Tibia*, or if so falling out, could it be able to prop up the Weight above it,



At these Times the *Apparatus* is much the same with that for other simple *Fractures*: But you have now this Advantage, that the one *Focil* keeping its Place, preserves in great measure the Rectitude of the Member, so that there needs not that violent Extension, sometimes wanting in others, before they can be reduced to their proper Places; or, being replaced, is there half the Danger of the Bone starting, its Partner proving so good a Stay, as where both are to be set to rights.

You may discover this *Fracture* below the *Cubit*, by a Rising on one Side of the Arm or Wrist, and a Bowredness on the other, giving still farther way sometimes, with a small crashing Noise, upon a strict Pressure on the concave Part: When this happens on the Side next the Thumb, it is the *Radius* that is fractur'd; if that on the Side of the little Finger, the *Ulna*.

When the *Fibula* or lesser *Focil* of the Leg is broke, bearing hard above the outward Ankle, with your Fingers on the Outside of the Leg, you will perceive also the same giving way; and being got upon the fractur'd Part, the Patient makes a wry Face, if he does not cry out: The divided Parts of the Bones may be oftentimes, as in the other, heard also crackling one against the other, with a Hollow or Sinking in the Middle from their Depression; besides, the Patient, if he goes to stand, complains of great Pain and Pricking in the Part.

### Of Fractures Incomplete.

There is yet another *Fracture*, or rather, as I Semi-Fractures, think it may not improperly be filed, a *Semi-Fracture*: That is, when by some Force or Violence externally offer'd to one Side, the same gives way by

by bending, but the Bony Fibres on the opposite, being thus hard press'd, and not capable to hold longer upon the like Flexion, snap asunder, after the Manner of a Stick, not over dry, bent to such a Degree as to strain the ligneous Fibres, and put them, tho' whole on their Concave, upon flying asunder on their Convexity, and splitting perhaps half way through.

These Accidents usually attend Children and Infants, whose Bony *Striae* and *Laminae* are more ductile and pliable than in the Adult.

I have frequently observ'd the same to ensue that barbarous Custom, of Nurses and Maid-Servants lifting those little Ones by the Wrist, or taking them under the Arm; with the Weight of their Bodies bearing thereon, when going over a Kennel; also a hasty snatching them thereby, as they are falling from their Laps, or other Places heedlessly set upon, by which their Backs are often wrenched, their tender Joints distorted, and their Limbs thus render'd curved.

The same Injuries befall from their rudely tossing them to and from them, in their sporting with them; also raising them from the Ground, with no other Hold than that of their Hands round their Wrists or Arms: When, to add to their Imprudence and Folly, concealing the Hurt, the poor Infant is enfeebled all its Life, or the Limbs left crooked, especially if at Nurse in the Country, having had *Nature* only for a *Surgeon*.

In remedying these, being taken early or in Time, after a suitable Extension, you are to bear the contrary Way with your Fingers, or the Flat of your Hand, compressing the rising Parts till you find the Limb strait as its Fellow, after laying on a *Plaster-Compress*, to prevent the Bones flying up again, with the *Bandage* over the same, as we mention'd

tion'd formerly in Discoursing of other simple *Fractures*: By which you will soon retrieve the Injury, and set to rights these Accidents.

### Of Fractures with Dislocation.

It may be necessary before I leave this Subject, that I should remind you of the *Fracture* which is Complicate with a *Dislocation*: A Case certainly possible, tho' I dare say not half so common as knavishly represented, by some who call themselves *Surgeons*, yet are unworthy of the Name; but more especially by that most Impudent and Ignorant Set of knavish Pretenders, stiling themselves *Bone-setters*, who to amuse the deceptile *Vulgus*, and enhance the Value of a sham Cure of this Kind, give out that they set the Limb, which had been not only out of Joynt, but broke perhaps besides, in two or 3 Places: Nor is it uncommon to meet with Patients, who have been thus abus'd, and seem willing themselves to give into the Delusion, reporting in all Companies where there was no Body to call the Truth in Question, that their Arms or Legs have been thus broken, put also out of Joynt, and presently recover'd by some of these famous People: Yet at the same Time, if an Artist were to Survey these Limbs, whatever there might have been of a *Dislocation*, [which is now past finding out] it were odds [so dextrously do these Folks perform their Work] if the least Appearance of *Callus* were discoverable in any one of the fractur'd Places: But enough of this unlearned Crew in other Sections.

I know not more than once that I have seen together both *Fracture* and *Dislocation*, in the same Limb, tho' possibly others oftener: Nor once the same Bone Fractur'd at the same Instant in two distinct



distinct Parts thereof, in the proper Acceptation, and as commonly understood: Tho' I by no means dispute the possibility also of this Accident.

In a *Fracture* with *Comminution*, a Bone may be said to be broke, not only in two or three, but in ten places, meaning by the same, so many Pieces or Splinters: And in a very *oblique Fracture*, both of the Leg, as well as Thigh, upon the first View, and even handling of the Limb, I have been led into such a Conception of the Case, perceiving the Bone loose in the lower Part, and several Inches above, discovering some other Part protuberating or pointing under the Skin: But on Second and farther Examination, I have been convinc'd it was one and the same *Fracture*, and that the double Appearance, has proceeded only from the great *Obliquity* of the Bone broken.

I have said thus much, by no means to have it thought I disallow the Possibility, as I observ'd before, of the same Bone to be *Dislocated* and *Fractur'd*, or to be truly *Fractur'd* in two distinct Parts; but to acquaint you, how frequently these Reports have been given out, when there has been no Truth in the same; As I could make Oath it has been in most, if not all those I have examin'd after, where the Case has been represented on this wise. But to our purpose.

In a *Fracture* happening with *Dislocation*, it certainly behoves us first of all to attempt the reducing the Bone displaced, where the same is practicable, before we meddle with the *Fracture*: Otherwise the Extention requisite to replace the Head of the Bone split out, must unavoidably undo your first Work of reducing the Bone broken.

I said if the same is Practicable, because I think in many Cases, it is not: To Instance, admit the  
*Fracture*

*Fracture* a little above the Wrist, the Elbow or the Ankle, in the middle of these Bones, with a *Dislocation* of the *Cubit*, the *Humerus* or the Joyn't of the Knee; altho' here I say, there may be greater prospect of Success, having more Liberty for Extention as well below as above, yet supposing the *Fracture* on the upper Part of the *Ulna*, the *Os Humeri*, the *Tibia*, and especially the *Femur*, near its Entrance into the *Pixis*, of the *Ischium*, called *Ace-tabulum Coxendicis*, with a *Luxation* of the same, I see not any likelihood of succeeding in the Reduction of these Dislocations: And therefore all the Artift has to do at such Times, is to take Care of the broken Bones, and making an honest *Presagium*, leave the rest to Time and Nature, least by seeming to over-act his Part, *Inflammation*, *Gangrene*, at the best *Apostemation* and *Fistula* ensue, much worse for the poor Patient, than if you left him whole, with a less useful or imperfect Motion of his Limb.

We have already acquainted you what is to be done at other Times, when any of these Symptoms happen to arise after the Reduction of *Fractures* in general: And if it so falls out, that they have already seiz'd on the Limb, before you are sent for, as in Places remote from present Assistance, or where the Accident has been overlook'd, and taken only for a Sprain or Contusion, the prime Scope you are now to aim at, is to take of these before you meddle with the broken Bones; for here also by an ill-tim'd Extention in order to reduce the *Fracture*, you will highten the same to the greatest Danger not only of the Patients Limb, but Life also.

of

Of the Callus over-grown, also of a  
crooked Limb left after a Fracture.

Of the Cal-  
lus too lux-  
uriant.

There are yet two supervening Accidents unobserv'd, at sometimes occurring upon these Cures: The one an equal but over-grown *Callus* round about the fractur'd Parts, occasioning a Deformity by standing out above the Surface of the adjoining; the other the same *Callus* agglutinating the broken Extremities in a Curve, or leaving a crooked Member. Which has, as in the Cases above recited, been owing either to the *Fracture* never well reduced, or after Reduction, again displaced by the Irregularity of the Patient, or from Convulsion in his Sleep, usual the first Days, and from whence the Bone is afresh someway distorted: Or lastly, as frequently also falls out, to the untoward *Obliquity* of the *Fracture* it self, or *Comminution* of the Bones; which notwithstanding the greatest Care and Diligence, especially when complicate with *Wound*, *Abscess* or *Apostemation*, could not by any Art or Means, have been left in a better Figure: But such is the hard Fate of *Surgery*, that a *Fracture* however ill-Favour'd or Compounded, is still no more than a *Fracture*: And every one expects to come of a like, with a strong and a strait Limb, or else the Surgeon has not done his Duty; little considering that he who has broken his Limb untowardly, must expect a Cure of like Kind: Or, as I used to tell these thoughtless People, he who at all times wants his Limb to be well set, should be sure of taking Care that it be well broken: But pardoning the short Deviation.

As to the first of these Accidents, the luxuriant *Callus*, our Authors have propounded sundry Medicaments



dicaments to mollify, relax, and dissolve the same, grown superfluous; such as the Decoctions *ex Rad. Alb. Bryon. Lil. Fol. Malv. Branc. Urfin. Sem. Lini ac Fœnugr.* &c. used as a *Fomentation*; *Embrocations* afterwards of some of the *Adipes vel Axungia*, as the *Adeps Anseris, Axung. Humana*, and the like; also to the same Intention serves the Fume of *Vinigar* sprinkled on the *Pyrites*, ascending all round the same, as we observed formerly for the *Schirrus*, the same *Emplasters* too there mention'd, such as the *de Ranis cum Merc. de Mucilag. de Cicuta ex Ammoniac. Diagalban.* The simple *de Minio* has had much *Eulogy* given it upon this Occasion, how deservedly I cannot say, having never found any great Matters perform'd thereby.

As the Disorder therefore seems easier obviated than removed, so when absolutely confirm'd, I much question whether these Experiments can be at all securely enterpris'd: For if the *Callus* has been of long standing, you may I think as well pretend to dissolve the Bone it self, as that now ossify'd *Callus*; and if recent or imperfect, you run a Risque of separating the same entirely, altho' you may propose to set Bounds and leave off in Time; for the Cement loosening a-top, the concreted Juices underneath will likewise give way, so that altho' you think you have removed the Cause, by leaving off such resolute *Topics*, yet will not the Effect presently cease; Which I well remember was the Consequence some Years ago of our *Bath-Waters*, recommended to a Gentleman under Discontent upon such an Accident, together with the Sulphurous Mud stagnating at the Bottom, laid round the protuberating *Callus*; not yet it should seem compleat or thoroughly hardened, in order to level the same; which, tho' the Patient apprehended he had timely disused, yet quickly

quickly after his return to Town, found himself mistaken; the whole growing so limber, that he was glad to lye in Bed as long again as he had done at first, and afterwards to compound for a crooked Limb, instead of a knotty One.

So that all Things duly consider'd, I would never advise any Patient to set upon dissolving the *infirm Callus* of a broken Bone, or to attempt other Remedy at these Times or on the like Emergencies, than a suitable Abstinence, using Foods less nourishing to supply the same, and farther to call off the superfluous Humour by Bleeding and gentle Purgation, repeated, if there shall be found Occasion, still farther to diminish it; lastly, by suitable *Compress* and proper *Bandage*, to suppress or keep under, if not reduce it to proper Boundaries: And where these are timely practis'd, 'tis rare I think to meet with Complaints of this Nature.

Of a crooked Limb after a Fracture.

The other, viz. the *Crooked Limb* left after a *Fracture*, is very common, and admit the *Callus* has been a Month, but especially of a longer Date, I see as little Likelihood of Remedy as for the other.

The breaking asunder forcibly the new Cement at these Times, has I think but rarely answer'd: Nor are you sure after this second Rupture, of Success.

From the larger Bones, as of the Leg, but particularly of the Thigh, thus served to gratify some more nice than prudent People, I have known *Abscesses* arise, and the *Fracture* before *Simple*, now made *Compound*, by a new Afflux of Humors; at length *Rigours* and *Convulsions* have ensued and carry'd off the Patient; whose Life has been, I say, thus forfeited to a vain Curiosity, and by an Artist

tist full out, I think I may say also, as imprudent, for enterprising the same.

Others, tho' with less of Hazard to their Lives, I have known fare little better as to the Straitness of their Limbs: And some, after the Pain they have hereby undergone, have been left worse than before: Wherefore at these Times also, I should rather persuade the Patient to rest content with his crooked Arm, but especially his Leg and Thigh, however ill shapen, than to submit to a Breach of a *Callus* now confirm'd, in Expectation of a strait one afterwards of either Sort.

If I found a Bone protuberate upon an Accident of this Kind, at the first opening of the Limb, before the said *Callus* was to any Degree settled, I should not scruple probably, if I could not otherways sink the starting Ends by Compress, to renew my Extension, and endeavour remedying of the same, provided there was no *Tumour*, *Inflammation*, or other Symptom to contraindicate: And it may be at the second Opening, at the Fortnight's End, if I found the *Callus* soft or pliable, I might attempt the same; nay at 3 Weeks I would venture to rectify a very blingling Piece of Work, a started Bone or a *Fracture* ill reduc'd in a small Limb, as the Arm, either above the Wrist or Elbow, the Patient an Infant or Child, void at the same Time of Fever or other considerable Indisposition: Farther than this I should be unwilling to go, nor yet so far with many *Fractures*, and many Constitutions.

From all which, the young Surgeon may animadvert, that the best and safest Method to avoid these Inconveniencies, is to have always a vigilant Eye or early Oversight, where these Accidents are to be feared, when the Error may be corrected at



sometimes, or if found by long Delay past Help, to endeavour, by *Compress* well adapted, and strict Deligation, as the Part will suffer, to prevent the farther bearing-out of the one, and the other with a quilted Stocking to conceal some at least of the Deformity: Which is now the utmost, that with Safety I think can be by the Surgeon experimented, or by the Patient is to be expected.



SECT.



## S E C T. VIII.

### *Of Particular Fractures : And first of those of the Cranium or Skull.*

**W**E have already, in the foregoing *Section*, given you a brief Description of most I think, if not all, the material Points relating to *Fractures* in general, with their *Diagnostic* and *Prognostic* Signs, as also their *Apparatus* and Method of Cure: But the *Fractures* of some particular Bones requiring a distinct Observation, and which were unobserved therein, we have farther thought fit to allot a separate *Section*, however short of some of the rest, for that Purpose, and shall begin with those of the *Cranium* or *Skull*, commonly handled among the Wounds of the Head, with which they are often complicate, at least require generally to be so made, in order to their Cure: Not to mention those of the Membranes underneath, and of the Brain it self, owing frequently to a Depression of the said Bone beaten in, and wounding of those noble Parts: However, as we have before taken a Liberty to deviate from some others, in our Method of handling these Subjects; so here also, intending a short Summary of *Fractures* under the same View, we place those of this Bone among the rest, passing by the Wounds of its outward Teguments, before observed among the particular Wounds, and

M 2      touch-

touching only upon those underneath no farther then concerns the *fractur'd* Skull.

*The several  
Kinds of  
Fractures  
of the Skull.*

Of these *Fractures*, the most usual are the *Depression*, called by the *Greeks*, *Ecpiesma*, and the *Fissura* or Crack, besides which the vaulted or arched, by the same Writers named *Camarosis*, is at sometimes met withal: That is, when one Part of the Bone is beat in, the other lying high above it, or one being sunk, the other like an Arch is left standing on high at the Top, which Kind may, among other Occasions, be owing also to some Instrument forcibly struck into the *Cranium*, when being hastily, and with the like Force, drawn out again, that Part of the Bone into which it enter'd, is pull'd up above the rest by the *Extraction*.

The *Depression* happening without a *Fracture*, is more peculiar to Infants and other tender Subjects, the Bony *Lamellæ* of whose Skulls, may give way to the external Violence offer'd at sometimes, and by their native Elasticity, perhaps rise after to their former Site, at least remain impress'd, without any ill Symptoms: But these I think may more properly be term'd *Contusions*, as the *Sedes* and *Excision* formerly remark'd *Wounds*, of the *Cranium*; the first being made by a sharp-pointed Instrument entering thereinto, the last by as sharp an Edge dividing, and sometimes cutting away a certain Portion thereof.

*The Contra-Fissure  
disputable.*

To the *Fissure*, just above recited, belongs the *Contra-Fissure*, called otherwise *Resonitus*, which indeed, as to the Reality of the Fact, is with me a little disputable.

For altho' upon the striking on one Side of a *Glass-Sphere*, or other hollow Globular Body, the Collision of the Air is such, that passing the same Instant round, and finding none, it bursts and  
vents



## SECT. VIII. Of Fractures of the Cranium.

vents it self on the Parts opposite: Yet where the Globe is divided into several *Sections*, however close they are held together, yet will the Force break through at the first of these, upon striking either: Now the same Office that these *Sections* perform, in warding off the Blow affecting Parts at greater Distance, especially such as are opposite, or stopping its farther Progress, is done by the *Indentures*, called by *Anatomists* the *Sutures*, in a humane Skull; and where these are not obliterated, or perfectly Ossify'd, I see not how this Accident can fall out, unless, as I hinted but now, in those whose *Craniums* are compos'd of one entire Bone, where there never were such *Indentures* to be discover'd, and which, tho' I have seen two such, I believe are very rarely met with; and even here too it may be question'd, whether the *Impetus* of the Air inclos'd would not, in its Circumgyration, be so moderated, by the Perforation at the Base of the *Occiput*, as to hinder its bursting at the Part opposite to the Stroke or Blow.

But I shall not enter farther into this Controversy, about which I find our Writers are not fully agreed, some asserting, and others, more especially among the Moderns, denying the Fact.

There is an other of these *Contra-Fissures*, which some of them have taken Notice of, *i. e.* when the upper Part or *Table* is struck, and the Breach is made in the inward or lower one; to obviate which we have here also the *Diploe* or Medullary Interstice between the said *Tables*, which doubtless must break and dissipate the Force of the Air, alike with the *Indentures* before observed.

The outward *Table* I have seen depress'd, when the inner has escap'd and continu'd whole: But I cannot say, I have ever discover'd the inward *fractur'd* or beat in, the outer at the same Time

whole; tho' I shall not take upon me absolutely to deny the Possibility of these Accidents at some Times, and in some Skulls, having several Authorities to countenance the same: But we now hasten to the *Signs* of a *fractur'd Cranium*, among which, first,

*Diagnostic  
Signs of a  
fractur'd  
Cranium.*

The *Diagnostics*, and these are either *Conjectural* from the consequent Symptoms, or *Real* and perceptible both before and after opening of the *Hairy Scalp*.

Of the first Sort, are *Stupidity and Coma*, upon the *Fall or Blow*, or a *Delirium* presently after, *Hemorrhage or Bleeding at the Ears or Eyes*, as well as *Nose and Mouth*, *Vomiting*, *Convulsions*, *Faltering in the Speech*, and *Palsy of the Limbs*: I called these, with some others of the like Kind, *Conjectural Signs*, because it is very possible the same Symptoms may happen to supervene upon *Concussion* only of the Brain, with *Effusion of Blood* upon its Substance, yet without a *Fracture*: Nor is any so truly *Pathognomonic*, as *Physicians* term it, or inseparable, as that when ever the same appear, we can truly say the *Cranium* is *fractur'd*, altho' the *Vomiting* and *Sopor* give us more especially great Suspicion.

When there happens a *Wound*, we are told also, that the *Hair*, if falling out where the same grows, will be found cut in sunder, and standing as it were erect in the same, which they will not allow can be otherwise occasion'd, than by *Resistance* from the *Bone* underneath; but this I think is no more absolutely to be depended on, than some of the foregoing, or than the Experiment of a *String* held fast between the *Teeth*, and being extended at the other *Extreme*, jerked suddenly backwards and forwards, which may indeed very much affect the *Temples*, but will less influence other

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other Parts of the *Cranium*, altho' fissur'd or fractur'd.

In the Case of *Delirium*, *Stupidity*, *Aphonia* or Loss of Speech, or other Defect of Understanding, I have been at sometimes directed, in uncertain Accidents of this Nature, to the fractur'd Part, by the Patient's lifting up his Hand, as it were naturally, very frequently to the same: But this, where there is a profound *Sopor*, is sometimes wanting, and at others may prove erroneous.

The *Real Signs*, and such as give us indisputable Evidence are, if there is no Wound, when by pressing on of the Fingers round about the Hairy Scalp, we find such Depression or Dent and Sinking therein, as lets them in below the Surface of other Parts of the *Cranium*; and when by such Enquiry, the Bones being separated, we plainly perceive them to give way, with a Crackling under our said Fingers, the Case is then indubitable; also, where there is a Wound, still farther evident, and perceptible by your Fingers making the Enquiry, if it be not visible to the naked Eye.

The *Fissure* indeed is not so easy to be discover'd, the *Cranium* now keeping its proper Dimensions, and the same sometimes running very intricate and winding, at a Distance from the Part first receiving the Blow or Fall; at other Times also so very small, as scarce obvious to the naked Eye, when the *Cranium* for that Purpose is denuded of its Covering the *Pericranium*.

That Sort which is called *Rima*, the Clift or Chink, is much easier found out, as more conspicuous and discernable when laid in View, as also to the Finger or Probe in searching after it; but here you must take Care you are not deceived by the *Sutures*, in taking these for some Clift or Fissure, in such your Examination, as I remember



happen'd to my self, in a *Leather-Seller's Child*, in *Old Bedlam*; who had received a Wound on the lower Part of the Forehead, complicate with the usual Symptoms of *Vomiting*, *Delirium*, as in *Fractures* of the *Cranium*; searching narrowly for which, I discover'd a Ruggedness on the *Os frontis*, which stop'd my *Probe*, and which I took at first for a *Fissure*; but in dilating the Wound, in order to make way for the *Trepan*, I found that what I had before taken for such *Fissure*, was a Continuation only of the *Sutura Sagittalis*, in this young Subject, quite down to the Nose: Yet if the Symptoms had not gone off as they did, by thus breathing the Parts affected, I had notwithstanding proceeded to the Operation on the Side of the said *Suture*, for the Relief of the Brain; which however, neither complicate with *Fracture* or *Fissure*, is yet oftentimes oppress'd in its Membranes by *Inflammation* and *Tention*, as well as *Extravasation* and *Abscess*, ensuing at sometimes by reason of the *Concussion*, and which on these Accounts requires the Use of the Instrument, as much as if the *Cranium* above had suffer'd a Solution of its Continuity.

The Method of discovering the less perceptible, or *Capillary Fissure*, is, according to some Practitioners, by going over the suspected Part with a Sponge dip'd in Ink, and afterwards wiping the same off with another dry one, where the Defect is, the Ink soaking in, leaves a Trace behind, discovering its Site and various Windings.

*Borellus* tells you, that if, having shaved the Hair, (which at these Times is the first thing to be done) you lay a *Cataplasm* of *Bean-Flower* over the whole *Scalp*, and when the same is dry, remove it, you will find the *Fracture* thereon delineated: But this I think, whatever Discovery it may make in the larger, where there is no Occasion for the  
Expe-

Experiment, I doubt will be found a very uncertain Rule to go by, in the Capillary *Fissure*, where there can be no damp or *Halitus* passing through, or other Vacuity sufficient to alter or impress the contiguous Parts or inward Surface of the Application: And so far of the *Signs Diagnostic*.

As to the *Prognostic*, it is certain every fractur'd Skull has more or less Danger attending, not so much from the *Fracture* singly consider'd, as the supervening Accidents, by Reason of the Membranes underneath oppress'd, Effusion of Blood upon the Brain, or this last it self, together affected.

However, As a *Fracture*, where large Portions of the *Cranium* are broken off, there is still more Danger from so noble a Part as lies therein expos'd thereby, the which we cannot always say of the *Fissure*: The *Rima*, or large *Fissure*, called otherwise a *Chink*, is not only sooner discover'd, but at sometimes may so fall out, as to serve for relief of the Parts within, by discharging the Blood or Serum Extravas'd, and letting out the putrid Steams shut in by the Minute or Capillary *Fissure*, which escaping the Enquiry, is frequently overlook'd, till the Patient being thrown into Convulsion and Palsy, or the Brain corrupted, the Operation is perform'd too late: A fatal Instance of which, I have given in the Introduction to a remarkable Case in Surgery, Printed in 1709.

Again, in small and superficial *Depressions*, especially of young Children, there is less Danger than where the same are deeper, and by the Angles of which, the *Dura Mater* underneath is prick'd or torn, exciting Convulsions and other formidable Accidents: The former sometimes rising up again of their own accord, by the elastic Property of the Bony Fibres themselves, or continuing where they are, exciting no threatening Symptom: Whereas the last are seldom so lucky, but

but for the most Part, if not always, require the Operation of *Trepaning*.

Farthermore, Those *Fractures* seated upon or near the *Sutures*, under the *Temporal Muscles*, and on the fore-part of the Head, have frequently more Danger, than at a distance, or remote from the same, as on the sides of the *Synciput*, or more backwards on the *Occiput*: This I say, consider'd simply as *Fractures*, nor can there be any time precisely fix'd wherein we can pronounce the Patient absolutely out of Danger after these Accidents. Some of the antient Writers tell us of *one Hundred Days*, I must confess I lost a very hopeful Patient, who was got up to *Eighty Eight*, and had been to Appearance, after the Operation of *Trepaning*, the greatest part of that Time, as well as ever in his Life: Whose Case being extraordinary, I publish'd as above said, with a *Plan in Sculpture* of the *Fracture*: So that in this Respect as we said of *Wounds*, we may say also *here*, that some die presently of seeming inconsiderable Hurts: A box of the Ear having immediately depriv'd them of their Lives, others hold out long, and sink at last, whilst others again Survive very desperate Accidents, and deplorable *Fractures*, and [tho' long] do well at last.

HIST. 91. I have been sent for to a Person, who the next Day died in earnest, from the tripping up his Heels the Day before by his Friend in jest, as they were Sliding; by which a Rupture of the Blood-vessels happening, together with a *Fissure* of the *Cranium*, the Brain was instantly Delug'd, as we discover'd upon *Dissection*, and the use of the Saw.

HIST. 92. *Scultetus* takes Notice of one, complaining of great Pain of the Head, with *Vertigo*, a *Paralysis* seizing also upon the Arm, which gave the first Suspicion of a *Fissure*; for which having open'd the *Scalp*, and made discovery of the Cleft, he trepan'd



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pan'd twenty Weeks after the Hurt receiv'd, when the Symptoms going off, the Patient recover'd.

*Hildanus* assures us, that he had seen a Maid, Hist. 914 who had lost a great Portion of her Brain, performing at the same time her Domestic Affairs, as if no Accident had befalln her: Yet after 6 Months, she Died, rather, as he relates, by the Neglect of her Wound, than its Danger otherwise.

*Marcellus Donatus*, at the Years End, took out a Hist. 94 large piece of the Skull, which he found loose upon the Membranes: *Nature* having separated the same of her self after the Accident, and an Angle of the Bone, thrusting up against the *Scalp*, gave the first Suspicion; which finding otherwise impossible to be Extracted, he first dilated the Wound, saw'd off a piece of the *Cranium*, which shut it in, and drew forth the loose Bone, the Patient afterwards recovering.

*Monfieur Vaughion*, informs us, that they had at Hist. 95 the *Hotel Dieu at Paris*, a Woman, who by a blow on her Head, had a large part of the *Frontal*, with as much of the two *parietal* Bones, came away whole together, by which the *Dura Mater* lay expos'd for a vast Compass; yet notwithstanding, the same Incarn'd, tho' it never harden'd so, but the *Oscillation*, or alternate Motion of the said Membrane continued manifest: For the Defence therefore of the Brain, and this tender *Penthouse* over it, she wore always a Cap of beaten Lead, and carry'd about the large Portion of her Skull, as a Cup to receive Alms in.

All which, with many others I could recite, some of them falling under my own Knowledge, should encourage us not to abandon these miserable People, whilst alive; but still to do our utmost for their Preservation, since it often falls out, that the Accidents of this Kind, tho' seemingly very desperate,

perate, have notwithstanding, been recover'd: But it is time we come to the Method of Cure.

*The Cure.*

In every great *Contusion* then of this Part, I mean the *Head*, whether by Blow or Fall, if your Patient loose his Senses, Raves, or utters any incoherent Words; also if *Vomiting*, *Palsy*, *Spasms* or *Convulsion*; if *Sopor* or Snoring, as in a *Lethargy*, or like one in a profound Sleep, having taken away a convenient Quantity of Blood from his Neck, or if that cannot be conveniently done, from either Arm, you are to cause his Head to be Shaved, and then strictly examine all Parts of the *Scalp*, as before directed: When if you find no *Depression* of the Bone, or separation of any Part giving way, and crackling as it were, under your Fingers; or having no Direction to the Part injur'd by the Patient's lifting up his Hand, shrinking from you, or winching when you are upon the same; you are then to enquire of the By-standers, if there are any to be found who were present at the Accident, what part of the Head came first to the Ground? Or after what manner the Stroke was given, or the Blow receiv'd? As well as by what sort of Instrument? In which Place you may sometimes discover an *Echymosis* or *Sugillation*, if not *Fluctuation* of the extravasated Blood underneath: Upon which Part, or as nigh as may be for the *Sutures*, and *Temporal Muscles*, [which last as formerly Noted, must sometimes be divided, when you cannot otherwise come at your Work] you are to make a Cross-Incision, or in other Form more Advantageous, where these happen to lye in the way, through the *Scalp* to the Bone: And having ras'd the *Pericranium* round about, in order to the Operation, you are for this time to content your self, and dress up dry, or with Restringtons, if there be occasion; as we have directed for the Wounds  
of

of the *Scalp*, with the *Cranium* denuded of its Cover.

After this, the Symptoms no ways remitting, but the *Sopor* especially, still continuing, let the Physician be call'd in, that by *Vesicatories*, *Sharp* and *stimulating Clysters*, together with proper *Volatile*, *Cephalic* Medicines, the Spirits may be roused; and a Revulsion made from the Parts oppress'd: After which, waiting till next Day the Issue of your Incision, and physical Prescription, the first of which sometimes by only giving a Breathing to the Part, no damage having befalln the Skull, taking of the *Tention*, removes the Symptoms, the Patient quickly after recovering his Senses, and requiring no farther proceeding with the Instrument.

"When *Charles*, the Son of *Philip*, King of *Hist.* 961  
*Spain*, by a Fall down Stairs, had exceedingly  
 "contus'd his Head, and was thereby Convuls'd,  
 "Vesalius being sent for, immediately made a crucial Incision of the *Scalp*, in order to bore the  
 "Skull: But the Symptoms hereupon disappearing,  
 "the Perforation was set aside." But we have no need of Foreign Instances of this Kind, since every one who has been any thing conversant in Practice, must have observ'd as much.

Having then remark'd the Consequence next Day, of the preceeding Incision, and finding the Symptoms to require, you must proceed to bore the *Cranium*, by setting on the *Trepan*; and indeed in some Cases, where there is great *Depression*, and the Membrane underneath thereby offended, unless the *Hemorrhage* restrain your farther Proceeding at that Time, it may be requisite you set on the Instrument sooner.

The deferring this Operation by reason of the *Full-Moon*, at which time we are told the Brain riseth



riseth higher than at others, and consequently renders the same Dangerous, is certainly Hazardous, for were not the Supposition of such Matter of Fact groundless, as I believe it is, yet must the Danger by delay, in some of these Misfortunes, be still greater.

I have trepan'd Children of 5, 6 and 7 Years of Age Successfully, and yet in these Subjects the *Dura Mater*, and the Brain it self, lie much higher and closer to the *Cranium* than in the Adult, being contiguous doubtless in the *Fœtus*, as is Evident by the Traëts or *Sulci*, exculpt on the Concave Part of the *Cranium*, by the Blood-vessels of said Membrane: And therefore in this tender Age, the steadier Hand, lighter Pressure, and more leisurely Motion of the Instrument, with all necessary Circumspection, will be wanted: But the Neglect of performing it, even in those still somewhat Younger, which is forbidden by some Writers in Surgery, if there be no other way to free the Membrane from the depressed Bone, which by its Points or Angles cut in and tear the same, the Symptoms thereby highten'd; this I say, seems to me a sort of indulgent Cruelty, or abandoning these little Ones to a greater, for fear of the lesser Danger.

I say not this, by any Means to encourage a rash Enterprize, of which I think none have kept themselves clearer than my self; but I must enter my Opinion on this wise, that where one has miscarry'd under the Operation, meerly by *Trepaning*, there have been 3 or 4 times that Number lost, by its not being done at all, and many others from delay, or not timely Enterprising the same. But proceeding, let your *Apparatus*, when going about the Work, be as follows, ready at Hand.

I. Your

1. Your *Syndon* of Silk or Sarfenet, double, of a circular Figure, suitable to the intended Bore, rather wider in its Dimensions, that lying under the Edges, the Membrane may be thereby the better secur'd from the same: This must be strung with Silk, for its easier Extraction. 2. Your dry Dossils, to fill up the Wound, with a soft circular one for the Bore, or to be laid lightly down upon the *Syndon*. 3. Your Pledgit, to lye over all, arm'd with *Liniment. Arcaei*. 4. Soft Bolsters of Cloth, for the outside; And lastly, your double-headed Roller.

These being all ready, with the Medicine for Dressing up of the Membrane, or in which the *Syndon* must be dip'd, you are to take an Instrument with a suitable Bore, well set for the Work, with its Pin fixed, and placing the Patient's Head commodiously on a Pillow, in a good Light, where it must be kept steady by the Hands of your Assistant, stopping first his Ears, especially if he be Sensible [and indeed I see not otherwise any occasion for so doing] lest the jarring noise of the Saw disturb him: When fixing the said Pin on the Bone, you turn gently backwards and forwards, till the Teeth of your Saw have made a circular *Sulcus* or Furrow: After which, there being no farther hazard of slipping out of the Tract you have thus made, you may take out the *Pin*, and cleaning the Teeth of your Instrument with a Brush provided for that purpose, enter it again, bearing still harder till you are got through the first Table, or down to the *Meditullium*, called the *Diploe*, or *Interstitium* of the two *Tables*, which you will know as you lift up the Instrument, by the Blood issuing into the *Sulcus*: When again proceeding warily, more especially in Children, whose Skulls require not so strong a Pressure, and whose Brains, as we but now observ'd, lye high, with the *Dura Mater* as it were

were contiguous to the Inside thereof; so that here the *Motto*, *Festina lente*, is worthy your Remembrance, lest otherwise by Inadvertency, you brake through of a sudden, and wound the Membrane: For your farther Security against which, it behoves you to lift out your Saw, not only to brush or clean the Teeth, and to oil them afresh, if there be found Occasion, for their pleasanter working, but with the End of your *Probe* or *Spathula* to examine the Depth of your Tract or Furrow, that you may the better know on which Side to bear most, passing lightly over that which is most divided, till the Piece beginning to shake round about, is now only held by some small Particles of the inward *Lamen*; or, which will readily give way to the *Elevator*, entering that Part of the Bore where you perceive you had got quite through

And indeed this Way of proceeding, particularly with Children and young Subjects, I prefer to the advancing farther, or dividing the Piece all round entirely, and taking up the same, as may fall out, in the Bore of your Instrument, or off the Membrane, where it sometimes falls down, for the Reasons above.

I remember the first little One I Trepan'd, an Accident of the first Kind besel me, and put me, as well as the Warden, who stood by, into great Consternation; for missing of the Piece, we were fearful, finding a Rent in the *Crassa Meninx*, that the same was fallen through upon the Brain, till farther recollecting, and taking up the Instrument I had been working with, I perceiv'd it fast shut within the Box.

But I shall not enlarge farther upon this Operation, having laid down the Method of my own Process, in a Case of this Kind before remark'd,  
in



in which I have given a *Diary* of Practice from the Beginning to the End; unto which however I shall add this farther Caution, leaving the same to your own Judgment when ripen'd by Experience, whether or no it may be worthy to be remark'd: That is, when you are enter'd the *Diploe*, before you raise your Instrument, if it be not better to proceed and cut a Trace in the second *Table*, lest hastily, or at unawares, lifting up the same at that Juncture as you are turning, you break off the first, which I once see fall out, to the incommoding the Operator, and perplexing the remaining Part of his Work, altho' the Case seem'd indeed uncommon, the *Tables*, or external *Lamella*, proving very thin, and the Medullary Interspace, or *Diploe*, large, soft, also in Comparison, or loose and spongy, like an *Exostosis*, or what falls out among some *Ricketty* Children, such being our present Case: But to our Purpose:

When with the *Elevator* you have raised the Piece, after the Operation so far perform'd, and with a *Lenticular*, if there be found Occasion for its Use, (which is not often, where the Work is well perform'd) smoothed the Edge of the lowermost *Table* from any Points or Angles of the same, likely to give Offence to the subjacent Membrane: There is then, I say, no small Controversy about the Nature of the Medicaments to be apply'd to the same, called *Dura Mater*, or *Meninx Crassa*, to distinguish it from that underneath, which immediately invests the Brain, termed *Pia Mater*, or *Meninx Tenuis*, or in which your *Syndon* must be dip'd or moisten'd, that is the Piece of Silk or white Sarcenet, before-hand fitted, so that being laid down into the Bore, as above directed, it may extend beyond the Edge of the Perforation all round, for securing the Membrane aforesaid.

Medicaments for the Membrane.

To this End some commend the *Spir. Vini cum Melle Rosarum*, or this latter with a few Drops of *Bals. Peruan*: Others, the *Ol. Rosar. cum Refina*, for which Mr. *Wiseman* was a strenuous Advocate; others again, the *Ol. Hyperic. cum Syr. de Rosis Siccis, vel melius eodem Melle*; others, the *Ol. Lumbric. cum Bals. Tereb.* Either of which, I must indeed think preferable to that of *Galen*, the *Ace-tum Vini*, which he orders somewhere, as I remember, for the first Application.

But as to the Nature and Quality of these Medicaments, you are very much to be guided by the Age, Habit of Body, and especially the Degree of Putrification that may happen to attend, together with the Time or State of the Inflammation.

I must confess, whoever applies first of all the *Spir. Vini*, altho' admix'd with *Mel*, seems as if he intended to *deterge* before he had *digested*, which is preposterous, and prejudicial in any Wounds, much more in those of so noble and sensible a Part as this: Wherefore, I think, for the first Dressing, there is nothing better than the warm *Liniment* of *Arca-us*, or Mr. *Wiseman's* Medicine aforesaid, the *Oil of Roses* and *Rosin*, with which he begins and ends, subtracting only from the first after Digestion, and adding more of the last, or instead of the *Oil*, putting in some *Mel Ros.*

But when the Membrane is digested, there is no Objection against the said *Mel cum Spir. Vini*, or supposing the Part very foul and putrid, the *Tinct. Myrr. & Aloes* in Place thereof, nay, in a higher Degree of Putrification, I have used the *Flos. Ung. Ægypt.* with the *Liniment*.

The *Bals. Tereb. cum Ol. Hyper.* is likewise a suitable Digestive for these Wounds, or this of the Author last recited.

By *Tereb.*

*R̄ Tereb. Venet. ʒiſs. Ol. Hyper. ʒſs. Pulv. Thuris ʒj. cum Vitel. Ov. q. ſ. f. Linimentum.*

In Caſe of Pain. the *Ol. Lumbric.* may be ſubſtituted.

A *Deterſive* for this Uſe is prepar'd likewise in Manner following.

*R̄ Terebinth. ʒiſs. Mel Roſ. ʒj. Suc. Plantag. & Aſij ā ʒj. Coque ad Suc. Conſumpticnem, dein adae Farin. Hord. ʒſs. Sarcocol. ʒij. m.*

This may be made alſo a *Sarcotic*, by adding of the *Pulv. Myrr. Maſtich. & Aloes ā ʒj.*

Where the *Pia Mater* and Brain it ſelf are injur'd, the ſame Author lays down this which follows.

*R̄ Suc. Beton. ʒiv. Calamenth. ʒij. Flor. Centaur. Min. p. j. Hyperic. p. ij. Vini odorif. Itj.*

*Infunde per Dies tres & Coq. ad Suc. Conſumptionem, cola & adde Terebinth. claræ ʒiſs. Gum. Elemn. Spir. Vini Sol. ʒij. Ol. Hyper. ʒiſs. Mel Roſ. ʒiv. Coq. iterum pauliſper & addendo Pulv. Myrr. Aloes, Thuris Sang. Dracon. ſubtiliſſime Trit. ā ʒi. f. Unguentum.*

Having digeſted your *Membrane*, mundify'd and incarn'd with theſe or the like Remedies, ſo that the *Fleſh* begins to riſe up even with the upper Edge of your Perforation, you are then, or rather earlier, to dreſs up dry, leſt otherwiſe a *Fungus* riſe, as frequently happens in theſe Caſes, (tho' I believe uſually by the want of timely Care to prevent it) and give you great Diſturbance: To obviate this; I have ſometimes ſprinkled the *Pulv. Roſ. rub. Cort. Granat. Flor. Balauſt.* or ſuch like, continuing



nuing those exiccating Remedies till the new Flesh begins to harden, and the Edges of the Bone moldering off, turns into a Sort of *Callus*, being by Length of Time afterwards as it were ossify'd, and proving usually as strong a Fence as other Parts of the Skull.

And this is the Method to be observed in making way to the Brain, or its Membranes oppress'd, whether with or without a *Fracture*.

However, there being *Fractures* of this Bone of very differing Kinds, as we observed at the Entrance upon this *Section*, and calling for a diverse Management, we shall give you some farther short Instructions, for your Conduct relating thereunto, under the following Heads.

*Cautions  
about Tre-  
panning.*

*First*, That if after *Trepanning*, you find any grumous Blood or Matter upon the *Membrane*, not able to discharge it self by the Perforation, tho' favour'd by the Position of the Head for that Purpose, it may be requisite at sometimes that you make a second, in a Part more convenient for venting the same.

*Secondly*, That having perforated as before, and discovering neither *Fracture*, *Fissure*, or *Extravasation* upon the outward *Membrane*, nor yet upon the most diligent Examination, perceiving any other Part of the *Cranium*, which being bored, would be more likely to relieve the Patient, the Symptoms of *Sopor* or *Delirium* still continuing, the *Membrane* inflam'd lying high and turgid, with a Fluctuation as it were of Matter, perceptible underneath, the Case hereby grown as it were desperate, for the farther Relief of the Brain, you are to penetrate the *Dura Mater*, dressing up as we have above directed, taking especial Care at these Times, that both the *Syndon* lying in the

Per-

Perforation, and particularly the soft Dossils which are dip'd in the *Cephalic Balsam*, and let down upon the *Pia Mater* or Brain it self, be ty'd fast with Silk or Thread, the Ends of which are to lie out of the Wound, for their secure Extrac-tion.

*Thirdly*, Where there is Depression of the *Cra-nium*, provided the same be small, like the super-ficial Dent in some *Pewter-Pots*, the Patient young, without *Convulsion*, *Delirium*, *Stupidity* or other mischievous Symptom attending, you must not presently go to work with your Instrument, but treating the same as a *Contusion*, and Bleeding your Patient, let the Physician be call'd in, to direct what other Evacuation may be found necessary, leaving the rest to Nature, who sometimes of her-self raiseth the same insensibly, or admits it there to continue, without farther Detriment.

A Gentlewoman, very nearly related to my <sup>HIST. 97.</sup> self, has the most considerable *Depression* of this Kind, occasion'd by a Fall in her Infancy, that I ever met with all; there being Room to hide a Finger in the Dent, on the back Part of the Head.

But where the *Depression* is such, that both *Tables* being *fractur'd*, any Points or Angles of the Bone bear hard against the *Membrane* underneath, exciting those desperate Symptoms before enumerated, 'tis then your Duty, without Delay, to call in Help, and to make a circular Incision of the *Scalp*, and taking out the Piece, which is here preferable to the cross or any other angular Incision, especially where the Compass of the Bone beat in is not exceeding large, which done, if the Flux of Blood will admit, you may try at the same Time to lift up the depress'd Bone, if you have Room to enter your *Levator*, at the broken Edge, but if not, as is usually the Case where the Outer *Table* is

broke off, the inner only bowed, or not sufficiently open to let in the End of your Instrument, you must then pitch upon some proper Place for the *Trepan*, and before you dress up, to draw your Knife semicircularly the Compass of a Shilling, towards the Edge of your *Depression*, taking at least such Compass, as that you may have Footing by the same, for your Instrument on the firm Part, raising up the *Pericranium* also, as you did before, in that for laying bare the *Depression* by your circular Incision above-mention'd: Then dressing all up dry, when the Day after, your *Hemorrhage* being secur'd, you are to perforate the *Cranium* on the stable Part, for which you had made way, and through the said Perforation carefully passing in your *Levator*, to lift up the Bone, dressing the *Membrane* as we have before discoursed.

*Fourthly*, In setting on the *Trepan*, you must take Care that you shun the *Sutures*, contriving also, as far as possible, that your intended *Bore* may answer the Design, both of raising the Bones sunk in, and discharging any extravasated Blood or Matter; that you may not, as taken Notice of before, lye under the Necessity of Censure, by being obliged to repeat the Operation, which yet cannot sometimes be avoided, in order to disengage a *Fracture*, where it happens one Part to be shot under another, or lock'd in thereby, after such Manner that I have in the like Case been constrain'd to bore in three distinct Parts, and at length to saw off the Interstice, before I could relieve the *Membrane*, and take away the offending Fragment: All

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which a young Female Patient underwent, together with an Iron-Pin thrust through the *Os Frontis*, at which Hole a large Portion of the Brain, at several Times, discharg'd, yet happily recover'd.

That



That Part of the *Cranium* also, above the *Orbit* of the Eye, is likewise forbid the *Trepan*, by reason of the *Sinus* under, as is that over the *Longitudinal*, also the inferior Part of the *Occiput*, opposite to the Fastenings of the *Dura Mater* on the Inside: Besides the Situation here would favour the *Exitus* of the *Cerebel*, as well as that of the extravasate Blood or Matter.

But I shall not farther enlarge, by giving Rules for the setting on of the Instrument, unless this farther one, that no Person attempt to meddle therewith, who has not first well acquainted himself with the Bony *Compages*, and whole *Encephalus*, or the Structure of the *Cranium*, as well within as without; as also of the *Meninges*, and the Brain invested by them: And for his farther Instruction, it may be necessary he frequently work with the Instrument upon humane Skulls, especially of *Malefactors* newly strangled, or others lately deceased, where such Liberty may be given without Offence.

*Fifthly*, In *Fractures* of this Bone, when you have made way for the Relief of the Brain, and reduced the broken Parts into their Places, such of them particularly as are not entirely separate, you are to take Care that no more of the said *fractur'd Cranium* be remov'd, than Necessity calls for, at leastwise any large Portion thereof, by which the *Membranes*, and sometimes the Brain it self, may be exposed, at best the Cure protracted: For since we see daily, that other Bones, divided in like Manner, are united by Mediation of a *Callus*, Nature is as little wanting here, from the broken Edges, together with the *Diploe* or Marrowy Interstice, to provide a *Cement* for their Coalition, more especially in those we call Wounds of the *Cranium*, where large Pieces are sometimes divided by a Sword or

Scimiter, in close Engagements, and have been left adhering to the *Pericranium* and *Scalp*, which being replaced, and the external Wound stitch'd up, have after been found united as other *Compound Fractures*.

*Sixthly*, In *Fissures* proceeding no farther than the upper *Table*, if no Symptom appear, you may ragine the same till such *Fissure* becomes obliterate, and dress up as in other Hurts with a bare *Cranium*, we have formerly advised; where there is Necessity of *Desquamation*.

The like is to be observed for the Superficial *Sedes*, or Impress made therein by some pointed or sharp-edg'd Instrument.

But where the Crack goes deeper, or through both, with bad Symptoms concomitant, you must carefully trace the same from its Rise to its Extent, if possible, that so you may be the better directed where to fix your *Trepan*, with greatest Advantage for the Discharge of Blood or Matter falling on the *Membranes*, and there exciting such Symptoms as aforesaid: Or if the Chink be large enough for the Purpose, the Operation may perhaps be spared, unless those Accidents are urgent.

*Seventhly*, In a *Sedes* penetrating both *Tables*, or from whence the *Dura Mater* is also wounded, and an Inflammation thereof arises, if the Orifice is small and insufficient, you may *trepan* upon the Part hurt, placing the *Pin* upon the *Sedes*, taking Care however that it enter not too deep, and that it be removed so soon as you have cut a Track through the first *Table*, or made a sufficient Furrow therein.

*Lastly*, In the *Camarosis*, or vaulted *Fracture*, with an *Arch* at the Top, where the same lies high above the other Parts, as in forcibly drawing forth the offending Weapon, may fall out; you must endeavour

deavour the depressing such rising Part to its Place, raising up that which is sunk for relieving the oppressed *Membrane*: Which having done, if the said arched Part cannot be brought to co-incide with the rest, it may yet be more safely left to *Nature*, till separating from the same it may be taken away, whilst the *Membrane* underneath *incarns*, and is after *cicatrised*, as other Accidents of like Kind.

And this is what we thought necessary to lay down concerning the *Fractures* particularly of this Part, of which some of the Antients had such obscure *Idea's* about the Use of the *Trepan*, as to render the Operation in a manner desperate and perilous. *Arcaus* himself, the Author of that famous *Liniment*, or artificial *Balsam*, of which we have given such just Praise and Commendation, which still goes by his Name; this Person, I say, was wont to lay so great Stress thereon, that by the alone Assistance thereof, and his Plaister over it, he tells us that he had recover'd many of these *fractur'd Skulls*, some of which were deem'd deplorable and desperate, without meddling with any Instrument. But I would advise the young Practitioner not to rely, after so unreasonable a manner, upon this Remedy, or any other *Topic* however excellent, as an Application to the wounded Parts; whether the *Scalp*, *Cranium* itself, or the *Membranes* underneath, where the same are oppress'd, and the Symptoms urgent, occasion'd by any Fragment of the Bone beat in, or extravasated Blood and Matter pent up, which make the Perforation of the *Skull* now absolutely necessary.

We have already advis'd that you take great Care of the cold *Air*, at your Times of Dressing these Wounds; which, if in those where the *Cranium* only was bared, we thought very requisite, must surely be much more so accounted; where the  
*Mem-*



*Membranes* covering the *Brain*, and sometimes this latter it self, happen to lie exposed.

The like may be said of the *Regimen*, as to the other *Non-Nat.* which is most strictly to be observ'd at these Times, and by Neglect whereof, some irregular People, who were before in a hopeful way of Recovery, have miscarry'd.

### Fractures of the Nose.

Fracture of  
Bones of the  
Nose.

We shall next proceed, among *particular Fractures*, to observe some of those of the Bones of the *Face*, among which especially those of the *Nose*, and *Mandibles* or *Jaws*.

When the former is *fractur'd*, you must do your utmost to restore the broken Parts to their former Site or Places, since a Blemish here particularly left behind, is more discernible than others, and takes off exceedingly from the Beauty of the Face, which, if possible, as we said before of Wounds of the said Part, by all Means is to be preserved.

The Manner then of reducing these *Fractures*, is by the little Finger, where the same can be admitted, or with the End of a Pipe or Squere, arm'd with a soft Rag, thrust up the Nostril, and bearing outwards against the Depression, whilst with the Fingers of the other Hand, on the Outside, you settle the broken Parts into their Places: After which, to prevent their sinking down again, a small *Can- nula*, or Hoop of Silver, fitted to the Cavity, may be introduced; to keep out the Bones, and at the same Time favour the Respiration: In the Use of which, you must be careful not to pass the same too high, which by continually irritating, would render the Patient uneasy.

This Pipe may have a thin Rim turning up a little on the outside Extremity, towards the *Ala Nafi*,

*Nasi*, being perforate for the passing of a narrow Ribbond, which being drawn obliquely up, may be fastened to the Cap about the *Temples*.

Where the *Fracture* is rather prominent, or the Bones thrust outwards, having with your Fingers gently depress'd and settled the same, your little Finger of the other Hand, or Pipe as aforesaid, on the Inside assisting you, and preventing their Subsidence beyond their proper Bounds, a Compress shaped to the Part, and dipp'd in *Oxycrate cum Alb. Ov.* must be laid over your *Defensative*, prepar'd as usually, *ex Diapalm. Bol. Acet. & Ol. Ros.* or a Couple of thin *Splints*, of pasted Paper first soak'd therein, and shaped so as may best secure the Figure of the Part hurt, afterwards such Deligation as the same will admit; concerning which, we must own, that the *French* are very curious, and in which, I think, their Excellency chiefly consists: Yet some of these also may be very well spared; the simple Roller regularly turn'd, so as to humour the Parts, oftentimes satisfying the same Ends: Or, as in the present Case, a Cloth with Perforations well adapted, and as many Slits or Tails as are found necessary, for the more commodious Fastening and orderly Compression; as every Artist may contrive upon the Spot.

*Scultetus* also has delineated many of these *Bandages*, in his *Armament Chirurgic.* which look very neat in the Sculpture, but some of them being reduced to Practice, I have found both troublesome to manage, and less secure, or more uncertain, than some plainer Contrivances for which I have changed them. Not that I would, by any Means, discountenance the Ingenuity of Invention, to answer these Purposes, whether of our own or other Nations, or find Fault with any such as have a real Use and Benefit accruing by their Application.

Fractures

## Fractures of the Mandible.

Fractures  
of the  
Jaws.

The *Fractures* of the *Mandible*, I mean the lower, (the upper one being less exposed to these Accidents,) are reduced by putting the Finger of the one Hand into the Mouth, on the same Side, thrusting out the Bone which is beat in, whilst with those of the other Hand, on the Outside, you keep the adjoining Parts from starting, or if rising, pressing them down again, that they may lie upon a Level with their Fellows: After which, a *Plaster Compress* rightly shaped to the Bone, especially the prominent Part thereof, is to be laid on, with a *Defensive* covering the whole Jaw, and over that a Bolster dipp'd in *Oxycrate cum Alb. Ovorum*, and a thin Pastboard, or Paper pasted, shaped to the *Mandible*, and soaked in the same. Lastly, the *Bandage* or *Muffler*, reaching from one Ear to the other, fastened to the Night-Cap.

And observe always in these *Fractures*, that your Patient carefully avoid the least Motion of his Jaws, drawing his Nourishment, which for some Time must be of the liquid Kind, through a Spout or Pipe let down into his Porringer, whilst the other End, being put between his Lips, the same is leasurably drawn up thereby.

Farther, observe also that in the Reduction of this *Fracture*, if it so happens that the Bones are shot over each other, whilst your Assistant holds the Head firm or steady with his Hands on each Side, you are to clap two or three Fingers on the Inside of the *Jaw*, directly against the Fore-Teeth or *Incisores*, and gently extend by pulling the same out towards you, till you perceive the riding Part to meet even with the other *fractur'd* Extremity, which



which you are then to sink down into its Place, keeping your other Hand on the Outside, to prevent its slipping over the contrary Way, or at least some other Person for you, where both your own Hands are otherwise engaged in the Work.

### *Of the Fracture of the Clavicle.*

The next I shall descend to, is that of the *Clavicle* or *Collar-Bone*, which I have found the most frequently overlook'd, I think, of any other, till it has been sometimes too late to remedy, especially among the Children of poor People: For tho' they find these little ones to winch, skream, or cry, upon the Taking off, or Putting on their Cloaths, yet seeing that they suffer the Handling of their Wrists and Arms, tho' it be with Pain, they suspect only some Sprain or Wrench, that will go away of it self, without regarding any thing farther, or looking out for Help; whereas this *Fracture* discovers it self as easily as most Others: For not only the Eye in examining or taking a View of the Part, may plainly perceive a bunching out, or Protuberance of the Bone, when the Neck is bared for that purpose, with a sinking down in the middle, or on one side thereof, which will be still more obvious, if comparing it with its fellow on the other side; but when the same is more obscure, and the Bone as it were crack'd only, or a *Semifracture* as we say, yet by pressing hard upon the Part, from one Extremity to the other, you will find your Patient crying out, when you come upon the Place, and by your Fingers so examining, sometimes perceive a sinking farther down, with a Crackling of the Bone it self.

*Of the Collar Bone.*

As to the Reduction of this *Fracture*, it must be own'd the same is often easier replaced, than retained in its Place after it is reduced: For its Office being principally to keep the Head of the *Scapula* or Shoulder, to which at one end it is articulate, from approaching too near, or falling in upon the *Sternum* or Breast Bone, it happens that on every Motion of the Arm, unless great Care be taken, the *Clavicle* therewith rising and sinking, the fractur'd Parts are apt to be distorted thereby: Besides, even in the common Respiration, the *Costæ* and *Sternum* aforesaid, where the other End of this Bone is adnected, together with the Motion of the *Diaphragm* rising and falling, especially if the same be extraordinary, as in Coughing and Sneezing, are able to undo your Work: Not to mention the Situation thereof, less capable of being so well secur'd by *Bandage* as many others.

All which duely consider'd, 'tis no Wonder that upon many of these Accidents, altho' great Care has been taken, these Bones are sometimes found to ride, and a Protuberance discovering the same, is left behind, to the great Regret particularly of the Female Sex, whose Necks lye more exposed, and where no small Grace or Comeliness is usually placed.

In order now to the Reducing of this *Fracture*, or broken Coller-bone, having set your Patient on a Stool or Chair against the Light, so that you can come best at your Work, with an Assistant behind him, to keep steady the Head, whilst thrusting out that of the *Scapula* with one Hand, with the other you gradually sink or press down the rising Part, raising that which is depressed, till you find both the Extremes to lye even, and upon a Level: After which still keeping on your Finger, let your Plaster Compress, of fit size, be clap'd down heedfully

ly upon the rising, over which your *Defensive*, next your Bolster or Compress of Cloth, dipp'd in *Oxycrate cum Alb. Ovor.* somewhat bigger than that of the Plaister Compress, and over these, a larger Bolster of the like Cloth, covering all the rest: When with your double headed Roller, placed first with its middle Part upon the *Fracture*, you make a Cross both before and behind, passing under the one Arm-pit to the Shoulder opposite, and *Vice Versa*, till you have finish'd your Circumvolutions, your Assistant still keeping his Thumb or Finger on the Compress, the Shoulder also being kept out, till your *Bandage* is thus finish'd, when gently bringing the Arm down to the Side, let it be kept there in the same Posture as if it had been broken.

For the farther Security of this Reduction, and keeping out the Top of the *Humerus*, I have seen *Ferula's* of Tin, shaped to the Figure of the Bone, and being first quilted, laid over the same; others also of strong Past-board, and some of Wood: But I never found they answer'd Expectation, or that they were continued without Uneasiness and Disturbance to the Patient: Wherefore I usually have contented my self with the former *Apparatus*, ordering the Sleeve of the Coat and Waistcoat, to be ripp'd up, or some loose Garment to be put on, whereby there needs no pulling out or putting in of the Arm, in rising or going to Bed, to the Hazard of Displacing the broken Bone: And in Children, to prevent any irregular Motion thereof, I have sometimes taken a Turn with the same Roller over the Outside of that Arm; and thereby kept it close down to the Side: Yet, as I have already observ'd, notwithstanding all imaginable Care, it will sometimes fall out, that the Points, especially of some untoward and oblique  
*Fractures*



*Fractures* of this Part, will start or ride, and make a Bump or Knot very discernible, which is still less to be wonder'd at, when befalling some peevish and froward Infants and young Children, as well as grown People, who think much to be confin'd, but will be lifting up their Arms, and stirring them about, having no Notion of their Connexion with the Part hurt, or Influence of the same, before the *Callus* is fast, or the *Fracture* cemented.

There is another Method propos'd for the reducing of this *Fracture*, practis'd also in Replacing the same Bone out of Joint, which may be of Service when both Extremities are so deprest or beat in, that they cannot otherways be rais'd; and that is, by Laying the Patient in a supine Posture, or flat upon his Back, placing some convex Body, as a wooden Bowl or the like, betwixt or in the Hollow of the *Scapulas*, when the Surgeon stooping or kneeling, lays his Hands upon each Shoulder, forcing down the same, by which the *Sternum* being dilated, and rising withal, the deprest *Clavicula* is also forc'd up to it's Place: But this, as I remember, I never had Occasion to put in Practice more than once.

### Of the Fracture of the Scapula or Shoulder-Blade.

Of the Scapula, or Shoulder-Bone.

This *Fracture* is much more intricate, either befalling its *Spine*, where the Force was direct upon the same, upon its Neck, or its two *Processes*, the *Acromium* and *Coracoides*, when from above, and falls upon the Top of the Shoulder. In large muscular Bodies these Accidents are difficultly discover'd, at leastwise so that we can precisely say

say what Part of the Bone is really concern'd, and how affected.

'Tis true, upon strictly feeling round about, we may perceive a crashing Noise, as well as upon moving the *Humerus* up and down, upon which the Patient makes Complaint: We have likewise a farther Direction in meagre Bodies, as he sits or stands Naked before us, at least these Parts, by comparing the one exactly with the other; where if the *Spine* or upper Ridge be broken or beat down, we may observe a Subsidence, or as it were Falling in of the Muscles, which lye not up so full and round as on the other Side: Upon the Top likewise an Inequality will be discoverable where the *Processes* are affected, some Parts bearing out, whilst others are sunk in.

Again, where the Neck of the *Scapula* is broke off (a Case I think not very common) the whole Arm must thereby not only be disabled in its *Elevation*, *Circumrotation*, and putting the same behind, but upon each Motion, whilst your Assistant thus moves the Limb about, if with one Hand you take fast hold of the Top of the *Scapula*, or its Neck articulating with the *Os Humeri*, your other upon its *Spine*, you may be the better enabled to make a Judgment whereabouts the Separation is, by perceiving the *fractur'd* Parts crashing one against the other.

We have already acquainted you, in the *general Prognostics* of *Fractures*, that those which are near to, or upon the Joints, are more mischievous than those which are farther off, and in this particular one, whether the same fall upon that of the *Humerus* entering, or the *Scapula* receiving the same into its Cavity, or admit the *Processes* only are broken off, the free Motion of the Joint may happen afterwards to be thereby some ways impeded, and

stiffen'd by the Intervention of *Callus*, so as to hinder the regular Playing of the Bones.

In remedying therefore these Misfortunes, where the *Spine* of the *Scapula* is broken down or depress'd, if the outer Teguments with the *Superscapular Muscles*, as in some corpulent Bodies falls out, obstruct not, you must endeavour, with your Fingers thrust underneath, to elevate the same, which having replaced, with suitable Bolstering and Deligation, you are, as much as possible, to keep it up, which in lean Bodies is much easier effected.

The like in the broken *Processes*, and the *Cervix Scapula*, where good Bolstering about the Juncture, properly adapted to keep the divided Parts together, with convenient *Bandage* suitably contriv'd, and manag'd for their farther Security when conjoin'd, is all the Artist has to do, and truly all he can, whose greatest Care must be to enjoin Quiet, and to obviate the Symptoms happening to arise, as by Bleeding, also directing a proper *Regimen*, particular as to the Patient's *Diet*; and when he has done this, as becomes him, I see not any Injustice, that he should be paid for a Cure, in which, if the Work succeed, *Nature* rather than *Art* had the chiefest Hand.

### Of Fractures of the Ribs.

Of the  
Ribs.

Somewhat related to these, at leastwise as to their Obscurity in fat People, are the *fractur'd Costa* or Ribs, which yet are accompany'd with more dangerous Symptoms of another Nature, *viz. Fever* and *Inflammation*, from the *Pleura* underneath, the broken Extremities of the Bones pricking and offending that sensible Membrane, which is much increased by the continual Motion of the *Diaphragm*, straitening and again dilating the Cavity



ty of the *Thorax*, in which these Parts have a considerable Share under their as constant Exercise, by which their Consolidating is retarded, and the Symptoms of *Pain, Fever, Cough*, with *Difficulty of Breathing*, kept up.

In reducing the *fractur'd* Rib, where the Ends protuberate, let him be laid in his Bed on the sound Side, whilst the Surgeon gently presseth down the started Extremities, and if there be Depression, let the Patient at the same Time endeavour, by the Management of his Breath, to raise up the same: This not succeeding, and the *fractur'd* Angles bearing still against the Membrane, a Pitch-Plaister being apply'd upon the Edge or Border of the Depression, is suddenly to be rais'd or pull'd off, that together with the Skin, unto which it adheres, the Rib sunk down may also be lifted up.

For this Purpose, a dry cupping Glass has been also apply'd, but by reason of the Afflux of Humour thereby promoted, and the little Probability of elevating any great Depression, besides, as in the former Experiment, the Hazard of increasing the Inflammation of the *Pleura*, I think them scarce practicable.

The *Terebellum* or Gimlet is yet more dangerous; since, by an Attempt to perforate the *fractur'd* Rib, you hazard wounding the *Membrane* close adjoining, and if you go not through, you will scarce have Hold sufficient to draw up the depress'd *Costa*; besides the Force used in boring, however carefully perform'd, is likely to sink the broken Bone down farther, if set near adjoining; much more so, if upon it, and if too remote, it will avail nothing: So that the last Remedy, all others failing, and the *Pleura* continuing prick'd by the Splinters, is by making Incision on the *Intercostal Muscles*, between

the subjacent, or, as may best favour you, the superjacent Rib, and passing in your Finger, or a crooked Instrument provided for that Purpose, through the same, you are therewith, bearing outwards, to force up and resettle the depress'd Bone: Dressing up the *Wound*, as we have shew'd among the *Wounds* of the Breast.

But indeed these Cases are very rare, I mean such as require this Method of Proceeding: For generally speaking, as we remark'd above, concerning those of the *Omoplate* or *Scapula* in corpulent People, the *Defensative*, proper *Bolstering*, and suitable *Bandage*, when with your Hand or Fingers you have done what you can to replace the *fractur'd* Parts, perform the remainder of the Work: Or in plainer Speech, *Nature* at these Times having done the Business, the *Surgeon* is paid for the same: I speak not this, as if I meant these Accidents were to be left to themselves, or trusted wholly to her Workmanship, but to intimate only, that when he has apply'd his Dressings in the Manner aforesaid, the great Stress, in these *Fractures* more particularly, lies then upon the Aid of the *Physician*, who by all means must be call'd, that by prescribing his *Oily Draughts*, *Sperma Ceti Linctus's*, with *Pectoral Decoctions*, after free and repeated Bleeding, as the Case may require, the Cough which often happens upon these Accidents, and obstructs the Cure, at least when befalling those subject thereunto, may be moderated, and the Respiration as well as the Expectoration render'd easy; *Balsamic* and *Traumatic* Remedies, being likewise to be administer'd, much after the same Manner as were directed in our Discourse of *Wounds* penetrating this Cavity.

Fractures of the Sternon or Breast-Bone.

The *Sternon*, to which the Ribs aforesaid are annexed by a *Synchondrosis*, or Cartilaginous Medium, being it self of a grissly and springy Substance, is not so liable to be *fractur'd*, altho' by Force it may be beat in, at which Times the same Method is to be put in Practice, that we laid down for the broken and depress'd *Clavicula*: I mean placing the Patient on his Back, with some convex Body under him betwixt the *Scapulas*, afterwards dilating the *Thorax*, by suddenly pressing with both Hands on the Top of his Shoulders, which sinking down, the *Sternon* is at the same Time elevated or raised up: But the sudden Force that must sink this Bone, at the same Instant intercepting the Respiration, so absolutely necessary to Life, and without which we can subsist but a few Minutes, is very like to destroy the Patient at the same Time it is impell'd.

'Tis true the Strength and Firmness of its Articulation with the Ribs is such, that by gradually laying on of Weights upon a flat Board placed on the *Thorax*, as the Body lies extended in the supine Posture on the Floor or Table, the same is capable of supporting an immense Weight, and to live thereunder for some Hours: An Instance of this we had lately experimented upon one of our Malefactors, refusing to plead, who being thus extended sustain'd by Degrees 400 lb Weight for near an Hour, and seeming, as it was thought, just ready to expire, in a low Voice desir'd to be releas'd from his Burthen, promising to plead, which was granted him; and the obdurate Miscreant, who had so long held out under this lingering Torture, and seemed on the Point of expiring, begg'd for Re-



spite, tho' in a State doubtless enough miserable from the Effects of his Pressure, yet chusing now in this Condition to spin out a few Days longer, and then, (but in another Manner) to be strangled with a Halter.

### Fractures of the Vertebrae.

Of the  
Vertebrae.

These Bones, whether of the *Neck*, *Thorax*, or *Loins*, being so firm and compact in their Bodies, are rarely *fractur'd*, or if *fractur'd* by reason of the Compression of the *Pith* or *Marrow* they contain, and the Office thereof, the Consequence must needs be fatal: But their *Processes*, especially the outward or *Spinal*, are liable to these Accidents, which falling out, the broken *Spine* is, if possible, to be raised up into its Place with the Fingers, after which, a small Bolster-Compress, that may support it, must be placed on each Side: The like *Defensive* and *Bandage* being requisite at these Times as we mention'd for the *Clavicula* and *Scapula* broken: But if the *Process* is so divided, as I once met with it, that it separates from its Body, it either raiseth an *Abscess* upon the Place, and extrudes it self thereby, or lying pricking in the Flesh, and creating Disquiet underneath, Incision may be made, and the Bone extracted.

### Fractures of the Ileon and Coccyx.

Of the  
Ileon and  
Coccyx.

The remaining Bones of the *Trunk* are the *Ilia*, called otherwise *Innominata*, that is the upper and Side-Parts thereof, which form the *Pelvis*: The Fore-Part is termed *Pubes*, the inferior *Ischia*, or *Ossa Coxendicis*; and indeed I think it is not undeservedly, that they have three several Appellations bestow'd

## SECT. VIII. Of Fractures of the Ileon, &c.

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bestowed upon them, since they are plainly so many Bones, conjoin'd by an intervening Cartilage, easily separable in Infancy, altho' *ossify'd* as it were by Age.

These Bones, I say, may happen to be *fractur'd*, as by great Falls from on high, lighting thereon upon hard Pavements; tho' it is not often, being better secur'd by their own Solidity and Situation, and less expos'd to Injury or outward Violence, than most others: And requiring no particular *Apparatus*; but having by Comparison of the Hips and other Parts concern'd, inform'd your self the best you can as well as by your Hands and Fingers, examin'd the Condition thereof, and adjusted the sever'd Parts: Time and Rest only, with your *Defensive*, also Bolsters properly plac'd, with your *Bandage* up the Twist and round the Waste, being, I think, all that is requir'd, or can be done at these Times, I shall pass them over, and come behind, where on each Side of the *Iliac* is placed the *Oss. Sacrum*, to whose lower Part is fasten'd another, or rather three or four little Bones, going by the Name of *Coccyx*, or Crupper-Bone, liable also to the like Accidents, which some rather chuse to call a *Dislocation*, but I think every Division or Separation, altho' of a Cartilage, by outward Violence, where there never was a preceding Motion, may as well be deem'd a *Fracture*, at least a *Disjunction*, as a *Luxation* or *Dislocation*, which in the usual Acceptation, implies a Bone out of Joint, and in which, before such Accident, there was a manifest Motion: But submitting this, whether the Bone be separated at the Cartilage, and I think these Bones are seldom elsewhere divided, they are usually beat in upon the *Rectum*, the Accident most commonly happening upon missing the Seat, going hastily to sit down, or where the same at unawares,

wares, and in rustic Sports, is hastily pull'd from under one, especially if the Stool was high, and the Fall sudden, from whence great Pain arises, creating much Disturbance to the Patient, especially upon his going to Stool, which he can hardly at all, at least but with great Difficulty, discharge, till the Bone is replaced.

In order to which, the Artift having oiled his Finger, and sometimes two, for their easier Admittance, must introduce them by the *Anus*, as in searching for a Stone in the Bladder, is commonly practis'd, but with this Difference, that as in this last he bears them forwards and inwards to the Bladder, for exploring the Stone contain'd therein, so in the first he thrusts them outwards and backwards, feeling the depress'd *Coccyx*, till thereby he has forced the same back again to its Place: After which a *Defensative* must be apply'd, shaped with a Point reaching the Verge of the *Anus*, and a loose *T Bandage* of soft Cloth, made like a Belt to go round the Waste, with a Strap from behind, coming up between the Thighs, and fasten'd up to the same before: Then Bleeding your Patient, and confining him to the Bed for some Time, till the Symptoms of Pain and Inflammation are worn off, and that the Bone is again well settled in its Place, when for some Time it may be necessary for him, in sitting down, to have a Chair perforated, as usual for Children in their *Needings*, at least a soft Cushion hollow'd in the Middle, for the Ease of the *Coccyx*, or let the Patient in such Posture bear mostly on one Hip, shifting to the other, as he grows weary.

Hist. 99. The only true Disjunction of this Bone that I have met with, was in a Gentlewoman, who stepping hastily on a Marble-Pavement, where a Pea-shell happen'd to lye in the Way, her Heels slip'd,



slip'd, and she fell with great Force backward, with her *Crupper-Bone* against the Foot of a small Stool, tumbling over at the same Time, which gave her such exquisite Pain, that she fell immediately into a fainting Fit: Out of which recovering, they went to raise her up, but she could not stand, without her Fit again returning: So that calling in more Help, she was carry'd up to her Chamber, and put into her Bed; where crying out of her Pain, by reason of its Situation, through an over Modesty she neglected sending for proper Assistance, chusing rather to rely upon her Midwife's Counsel, who, coming to her, persuaded her she was only bruised, and bathed the Part, according to her Judgment, with Brandy, after laying on a Poul-tice with some Herbs.

Yet, notwithstanding all her Endeavours, the poor Gentlewoman could get no Ease, but complain'd of a perpetual Needing to Stool, which she could not get rid off, altho' several *Clysters* by the Midwife had been used, which either could not pass, or came forth quickly after, *re infecta*.

Thus languishing for about a Week in great Torment, I was at length sent for, and coming to examine the Part, perceiv'd a large *Echymosis* round about, the Swelling being much sunk, and going more narrowly to view the Appendage of the *Sacrum*, and lay my Fingers thereon, I found the same depress'd or beat in, bearing hard against the *Rectum*: Wherefore dipping my Fore-Finger in Oil, I gently introduc'd it by the *Anus*, where I presently met the Obstacle, and with the same pressing outwards, and attempting to raise up the broken *Coccyx*, as I found it give way, I still bore harder, till I had freed the Intestine from its Pressure, when withdrawing my Finger there follow'd a copious Dejection of the *Fæces*, together with  
some

some Parts of the *Clysters* thrown up the Day before.

Afterwards, laying on a Plaister of equal Parts *Defensative* and *ad Herniam*, I enjoin'd her to lye still and quiet, ordering her a laxative *Ptyſan ex Decoct. Peſt. cum Manna*, with a cooling *Regimen* in general, *Almond Milks* and *Emulſions of the Seeds*, *Panada*, *Water-Gruel with Currants*, and the like, I took my Leave: But the next Day was again ſent for, ſhe finding the ſame Obſtruction to the Paſſage of her Stool, as at the firſt, and entering my Finger, as before, I perceived by the want of an early Reduction, the Point of the *Coccyx* fallen in again, as at firſt, which I could eaſily raiſe up, but perceived on the Removal of my Finger it fell again, the external Part being entirely ſeparate, and hanging as it were by its Cartilage on the Inſide, ſo that it would play backwards and forwards, giving way to be raiſed up, and after, by its own Weight as it were, for want of Support, falling down again: For remedying the Miſfortune, I contriv'd a Piece of *Cork* like a *Peſſus*, which I wrap'd up in Silk, and thruſt up as a *Suppoſitory*, and which indeed, during its Stay, kept up the Tail of the *Coccyx*: But *Nature*, unuſed to ſuch an extraneous Body, could not long bear it, before it ſtimulated the *Sphincter* to eject it; ſo that the poor Gentlewoman was forced to reſt content, and at the Time of her Stool very frequently neceſſitated, with her own Finger, to facilitate the *Exitus* thereof, the Part now, after many Years, ſtill continuing moveable, as at the Time I was firſt admitted to examine it: A neceſſary Caution for an early Enquiry into, and Redreſs of the like Diſorders,

## Fracture of the Patella or Knee-Pan.

The next of the particular *Fractures* we shall take notice of, shall be that of the *Rotula*, called <sup>Patella or</sup> otherwise *Patella*, or the *Knee-Pan*, situate betwixt the lower *Apophysis* of the *Os Femoris*, or Bone of the Thigh, and the upper one of the *Tibia*, or larger of the Leg.

This Bone, tho' small and roundish, and wirhal one of the most solid of the *Skeleton*; being able to resist a smart Stroke of the Hammer, is yet at sometimes broken, by a seemingly more inconsiderable Force, and that both *transverse*, *oblique* and *length-ways* of the same, and requires truly as much Care in its Management, tho' seemingly of less Moment, as any of the rest: Since by a Neglect to keep the sever'd Parts conjoin'd, an incurable Lameness frequently ensues: The Design of this Bone being for the more firm Articulation of the Thigh and Leg, and securing the Extremities of those Bones in their proper Places, more particularly in walking down a *Precipice*: And if the *fractur'd* Parts should happen to start or fly asunder upon their Reposition, a very great Debility must necessarily attend the Joint, and the intervening *Callus* at sometimes impede the free Motion thereof, if not entirely stiffen the same, as we observed in our *Prognostic* of *Fractures* befalling the Heads of the Bones.

The *Transverse*, upon this Account, is more dangerous by far, than the *Longitudinal* or *Oblique*, being more difficult to bring the divided Parts together, as well as to keep them so after their Conjunction: The Muscles inveloping the Bone, as the excellent *Hildanus* has well observ'd, rather favouring the *Fracture* length-ways, whilst the Heads  
and



and Bellies of the same pull one Way, that is upwards, and their tendinous Insertions below upon the *Tibia*, downwards; whence, as the same Person descants, it will follow, that almost inevitable Lameness must ensue the same: Which Misfortune however, I have known several to have escaped, altho' many of them have been deprived of a compleat Flexion; and some, tho' walking well enough upon smooth Ground, yet have been at a Loss in their going up and down Stairs, with their Feet interchanged as before accusom'd: But to the Cure, when you have got your Patient into his Bed, with his Leg moderately stretched out, the same is to be held steady by your Assistants, the one above the Calf or about the Gartering below Knee, with his Hands encompassing the Limb on each Side, the other above in like Manner, whilst you, having before examin'd the Condition of the same with your own, bring the broken or separated Parts (betwixt which in the *transverse* Kind, I have sometimes found so wide a Clift, as to let in two of my Fingers) close together, which is best effected by your Thumbs below, and your Fingers above, then putting your Plaster-Bolsters, the one likewise at the Top, the other at the Bottom, close also to the Outfides of the broken Bone, you may lay on a couple of broad Straps of the *adhesive* Plaster, in the Form of a *St. Andrews-Cross*, fastening the lower End a Finger's Breadth or two beneath the said Plaster-Bolster, and, keeping your Finger thereupon, pull up gently the Skin at the same Time, whilst, with those above on the other Compress, you bear downwards, and fasten the other End of the Strap at the like Distance there, proceeding cross-ways, as we said before, in the same Manner with the second: Then laying on your *Defensive*, which must encompass

pass the upper Part at least of the Joint, if not surround it, next a couple of narrow Cloth-Bolsters, three or four times folded, dip'd in *Oxycrate cum alb. Ovor.* and being express'd, placed also above and below, with one larger covering all; when with your double-headed *Bandage*, the middle Part of which is before-hand placed under the Patient's Ham, you bring one End obliquely upward above-knee to the right, whilst the other in like Manner is drawn to the left; and taking hold of each End with your Hands slid gently underneath, proceed as before below, thus decussating each, till the Whole is taken up, unless that one Turn or two thereof be spent in passing circularly, as well below as above the Joint, to the Edges of which, for the farther Security of this *Fracture*, I have sometimes caus'd four Tapes to be fasten'd, two to the upper, and as many to the lower, on each Side of the *Patella*, then bringing the same by a Tye near together, as in Case of the *dry Suture*, so call'd, for *Wounds*, the two Sides of the broken Bone are brought also nearer and kept close.

In the *Longitudinal Fracture* of this Bone, the same *Apparatus* is to be got ready, only the *fractur'd* Parts being conjoin'd by the Thumbs placed side-ways, as before above and below, the *Compresses* and *Bolsters*, as well of Plaister as Cloth, being also apply'd after the same Manner, *viz.* side-ways of the Joint, and the double-headed Roller managed, as we directed for other *Fractures* of those Parts, bringing one End one way, and the other opposite: But in room of this, after a few Days, I have sometimes made use of a laced *Knee-Piece*, by which I could straiten as I pleas'd, and by the Help of the adhesive Straps, and Bolsters apply'd on each Side, secure the *fractur'd* Parts

Parts in their Places; still taking Care, that during the Passing of the Roller, or Lacing on of the said *Knee-Piece*, an Assistant keeps his Fingers close upon the Application, to secure the Conjunction, shifting them as Occasion requires, to make room for passing the *Bandage*.

Monfieur *Vaughion*, in the *Longitudinal Fracture* of this Bone, directs this following:

“ Take a Roller of three Ells long, and two  
 “ Inches broad, rolled up at each End, and ha-  
 “ ving a Slit in the midst, to be apply'd on the  
 “ Middle of the *Fracture*: Then pass one of the  
 “ Heads of your Roller through the said Slit in  
 “ the Middle, so that the said Slit be in the  
 “ Middle of the *Rotula*: Then draw the Roller  
 “ pretty strait to keep the divided Parts together,  
 “ and cover the Bone with several other Circum-  
 “ volutions of the same, leaving small Edgings all  
 “ along; and lastly, keep all steady by several Cir-  
 “ cular Turns about the Juncture: When this is  
 “ finish'd, placing the Limb in the *Junk* as usual.

But I think our own Method above proposed, full out as good as this, and less troublesome.

At the second Opening, which used not to be with me till the Week's End, if the Dressings lay snug and well adapted, the like Applications are to be renew'd; unless that in the Place of your *Defensative*, some moderate *Cerate*, as was directed in our Discourse of *Fractures* in general, be found expedient, the Fluxion being taken off, for the greater strengthening of the whole Joint; whilst, upon these Occasions, you confine him strictly to his Bed, for at least a Month: After which, the *Callus* being fast, some lubricating Application may be necessary, with which to anoint the *Tendons* of the Ham, if not all round about.

Nor



Nor let it seem strange to you, that I have taken up so much of your Time in laying down particular Directions for a *Fracture* of a Bone, to Appearance so inconsiderable; since by the Misfortunes of this Kind, many a stout Man has been made a Cripple, and many an upright Lady forced after to halt, who in all Likelihood had come off better, with a broken Leg, if not a Thigh: An Instance of which, for its Singularity, I will give you here, although I have not thought it worth while to enlarge by a Recital of Histories of others, more common and less worthy Notice.

A *Dyer's* Child, at that Time aged about Thirteen, since a Woman grown, whether upon opening or shutting a great Door, I have forgot, but the same going stiff, and too much for the Strength of her Arms, she, as common at such Times, clap'd her Knee with some Force thereto, after which she complain'd of Pain, and limp'd upon Walking, but over-looking it some time, at least contenting themselves with some *Family-Ointment*, the Swelling increasing, I was consulted, and found the Child crying out of great Pain, with a Contraction of the Tendons *sub Poplite*, and large Tumefaction all round the Joint, in so much that she could not suffer the least Enquiry or Handling, without grievous Complaints and Disturbance; so that going chiefly by the outward View, and perceiving the Figure thereof regular, I order'd for the present only an *Anodyne Cataplasme* of the *Flor. Sambuc. cum Fol. Ros. in Lacte coct. ac Mica Panis inspissat.* embrocating first of all *cum Ol. Ros.* but the Fluxion notwithstanding increasing with the Pain, an Inflammation appear'd, threatening an *Abscess*: To prevent which, when I had used my best Endeavours, by *Bleeding, spare Diet* and *Emulsions* to temperate the Heat, *Clysters* also to exonerate

Hist. 100.

nerate her Bowels, and derive the Humours another Way, but ineffectually, suspecting Mischief now like to ensue, I desired some other Person might be advis'd with, and Mr. *Blundel* was sent for, who meeting me accordingly the next Day, and viewing the Condition of the *Tumour*, was for hastening *Maturation*, with the Poultrice *ex Ficubus ac Rad. Alb. cum Sem. Lini Fœnugr.* and the third Day after he came again, when we discover'd the *Tumour* lying high and prominent, on the Inside of the *Patella*, under which the *Matter* now fluctuating, a Piece of the *Velvet Caustic* was laid on, and the same even I cut into the *Eschar*, whence a large Quantity of a laudable *Pus* discharg'd; upon which our Patient grew easier, and by embrocating the Ham, *cum Ol. Lumbric.* the Tendons gave way, altho' by favouring the Limb, in a contracted Position thereof, that Leg was still considerably shorter than the sound.

The *Eschar* separating, we met again, and upon Search discover'd the *Patella* bared of its Membranous Enclosure, feeling as it were ragged, with large Sinuosity all round the Joint, whence great Quantity of *Matter* was daily supply'd; so that fearing the poor Child would sink under the same, and that after all we could do, there would be Hazard of leaving a *Fistulous Ulcer*, we could make no other than a very dubious *Prognostic*: However, we first dilated upwards near three Inches on the *Vastus Internus*, which whilst we were digesting, as I was taking out the Dressings one Morning, I perceiv'd the End of a Bone lye naked, on one Side of the Wound, having thrust it self out, and so loose that lying only entangled in the Flesh, I could easily extract the same with my *Forceps*: This I conceiv'd, (not surmising the same *fractur'd*) must be the whole Substance of the *Rotula* or *Knee-Pan*,  
sepa-

separated from its Covering, the *Aponeuroses* or Tendinous Expansions of the four *Extensor* Muscles of the Thigh, here inveloping the same, before their Insertion on the upper Part of the *Tibia*.

But resolving to justify my farther Proceeding, I dress'd up again for the present, with my *Dossil* dip'd in warm *Liniment*, laid into the Wound, a large Pledgit fac'd with the same on the Outside, also a Plaister-Compress on each Side of the Joint, gently to press forth the Matter, and prevent, as much as possible, any farther Sinuosity, or Mischief arising by Lodgment thereof; lastly, the *Bandage* so order'd, as might best answer the Intentions.

The next Day, by Appointment, Mr. *Blundel* and Mr. *Salter* met me at the Patient's House, when taking out the Dressings, and perceiving the loose Bone still farther advanc'd, in their Presence, and by their Approbation, I extracted the same, and upon veiwing the Shape and Substance thereof, we all concluded there had been a *Fracture* of the *Patella*, by which its upper Part had been obliquely separated from the under remaining behind: A Case, I think, rarely met with; no Part of the Substance being divided throughout, but cleft as it were in two upon the Flat, the upper Part, as aforesaid, rising and throwing off like an *Exfoliation*, leaving the remaining Piece behind, which never came in View, nor was discoverable by the Probe.

This done, we made a farther Examination, and found a *Sinus* opposite to the first, running downwards on the Inside of the *Tibia*; but being of great Length, as well as Thickness, upon the Juncture, we resolved upon laying a Bit of *Cauteristic* below, a little beneath the Place of the *Fonta-*



nel here commonly made, and to endeavour that Way to drain off the Matter, which accordingly, soon after the digesting out of the *Eschar*, answer'd our Expectation; the Discharge daily lessening, and the *Sinus*, by the Help of *Compress* and *Bandage*, uniting upwards to the Wound, from whence the shiver'd Bone had been drawn forth, which quickly after healed up: But there remaining a *Sinus* still below the Place of this last *Cautistic*, and the Matter having no Vent by reason of its depending Position, otherwise than the same over-flow'd; after I had tried a few Days unsuccessfully to unite the same by the *Compress*, I clap'd in my Probe-Scissars, and dilated about two Inches along the Inside of the *Gastrocnemius*, and putting hereby an End to this Discharge, healed the same soon after by Incarnation: When, believing my Trouble all over, I left her for two or three Days, giving Orders for lubricating the *Tendons* in the Ham, with a *Liniment ex Ung. Dialth. ac Ol. Lubric. cum parte tertia Axung. Humanae*: Likewise to strengthen the Joint, and reduce the same into better Shape, which was still much tumefy'd, immoveable and contracted, I sent a Person to take Measure and fit her with a *Knee-Piece*: But whether by the irregular Management thereof, drawing it too strait at first, or from some other Mischief still undiscover'd at the Bottom, her Pain increasing, I was sent for, and found her complaining of great Uneasiness on the Outside of the Knee, insomuch that unable to bear the Lacing of the *Knee-Piece*, the same had been thrown aside.

The Part looking somewhat inflam'd, I order'd it presently to be anointed with *Ung. Sambuc.* and at Night laid on some White-Bread and Milk boil'd to a *Pultis*, and mix'd up *cum Vitel. Ov. & pauculo*

*pauculo Croci*: But notwithstanding, the Day following I perceiv'd the Pain with Tumour and Inflammation increasing, with a new *Phlegmon* here also like to ensue; which, finding a Necessity for the same, I forwarded as the first, with a *Suppurative Cataplasim*, and the Matter being made, which seemed to lye deeper than that of the former *Abscess*, I laid on a *Caustic* somewhat stronger, *ex Lapide Infernali*, and the same Day let it out in great Quantity from the perforated *Eschar*, after which she had a good Night.

The next Day I met Mr. *Blundel*, as every Day afterwards for near three Weeks, and making a new Enquiry by the Probe, as well as Examination otherways by our Hands, we perceived by the Looseness of the Joint, that the *Matter* had worked itself quite through, the Instrument passing from the *Ulcer* above, downwards towards the Ham; where feeling underneath the same, tho' at some Distance, was yet perceptible: A Misfortune truly of the highest, Consequence, admitting no farther Dilatation, threatening, if not *Cariosity* of the Bones of the Joint, however an incurable *Fistula*, and by the continued Discharge, a *Marasmus* with a *Hectic Fever*, which had already seized upon her, and for which, by the Direction of Dr. *How*, her Physician, she was put into a Course of the *Testacea*, or *Absorbent* Powders, with the *Asses-Milk*; and having try'd, by suitable Compress and good Rolling, to press forth the *Matter*, and unite the Cavity, but without answering our Expectation, giving also a *Medicated Aq. Calcis* to sweeten the Juices, and help forward the Work of Healing, I proposed in a Case growing daily more deplorable, the passing a large Needle through a *Cannula* contriv'd for the Purpose, carrying a *Flammula* along with it, and that Way invite the *Matter* to take its

Course by a Vent commodious for its Discharge : To which Mr. *Blundel* (a Person, I think, through native Temperament, more timorous, in many of these Cases, than most others of so sound a Judgment) opposed the Danger of those *Nervous* and *Tendinous* Parts lying in our Way, and likely to be hurt in the Operation : At length however, finding we should lose our Patient, if somewhat of this Nature was not attempted, he gave way, after we had try'd, by choaking up the Matter at the Top, to force it upon taking its Course downwards, and raising a new *Abscess* more convenient for emptying itself thereby : But all in vain, the Symptoms of *Fever*, *Pain* and *Restlessness* increasing, and the *Matter*, in spite of all Endeavours, still bursting through at the Top : So that coming one Morning with the Instruments I had order'd to be made, I passed down the *Cannula*, the Extremity of which in the Ham, by bearing somewhat hard from above against the same, I could plainly perceive on one Side of the *Tendon* therein terminating ; then entering the armed Needle, I forced its Point through the outer Teguments, between the said *Flexor Tendons* of the Thigh, which drawing forth, and presently after extracting also the *Cannula* by the same Way it had enter'd, I left the *Flammula* tied with two Pieces of narrow Ribbon at each End, and making a single Bow-Knot on the Outside, which was daily moved in the Wound, first smeared with my *Digestive*.

But notwithstanding this, such was the Intricacy of the *Sinus*, that the *Matter* for several Days still issued by the upper Orifice, and I began to be doubtful whether or no our Contrivance would turn to an Account, till observing the lower so much fill'd and distended by the said Silk or *Flammula*, as to interrupt the Exit of the said *Matter* thereby ;



thereby; when I had well digested the Wound, I passed up a small thin Piece of *Gentian* between the Silk, and thereby gradually ampliating the Orifice, found after few Days thus proceeding, that upon extracting the said *Gentian* with my *Forceps*, several Ounces of *Matter* at length poured out, having made its Way as was desired: Hence finding sufficient Room made, I discontinued the Use of the Tent, and left the *Flammula* by itself, thinking it no longer needful, thus to choak in the *Matter* between the Times of Dressing, but rather to promote its constant passing off: And truly from this Time, our Work went prosperously on, the Passage of the *Matter* from above, being wholly cut off, and that by the lower Orifice daily lessening, our Patient growing also easy; so that after about a Month's Time from the *Seton* we had so little, that I cut out the same, suffering both Orifices to shut up, and put her on a *Knee-Piece*, that I saw well fitted and laced on my self, and which she wore now with good Advantage.

The Joint, as was to be expected, continued stiff and much contracted, so that the Limb was thereby shorten'd near three Inches: To remedy this Defect, she had a Shooe with a high Heel, by which, and the Help of Crutches, she made a Shift to go about the House: And we were both of Opinion, that her Cure being confirm'd by a little longer Time, her Flesh and Strength also recruited, so as that she might be able to perform it, she should make a Journey to the *Bath*, which she did accordingly, with so great Advantage, as to return, after about two Months Time, plump, fleshy, and with a good Complexion, the Tendons relaxing also the one Half of their former Contraction, which gave her Friends so great Encouragement as to send her thither the next Season, with a still farther

ther Benefit: So agreeable are those Waters in their *Balsamic* Properties, and kindly Warmth, to the *Nervous Compages*, especially assisted by a Youthful Subject, so that the now walks very tolerably, by the Help only of a Crutch-Head Cane.

By this Example we may see how small an Accident did here sever this hard and solid little Bone, the one Part from the other, giving Rise to a Train of unhappy Accidents, which had nearly proved fatal to the unfortunate Sufferer.

Having gone through the *Trunk* and larger *Limbs*, it remains that we speak a few Words of the *Fractures* of the Bones of the *Hands* and *Feet*.

### Fractures of the Bones of the Hands and Feet.

Fracture of  
the Bones of  
the Hands  
and Feet.

The Bones of the *Carpus* and *Tarsus*, with the *Metacarp* and *Metatars*, being small and having more Solidity in Proportion than some of the rest, are more liable to be displaced than broken, unless by some violent Force and great Weight falling upon, and crushing them to pieces: Which happening, you are to endeavour, by moderate Extension both above and below, that is, at the Wrist and Fingers, or at the Ankle and Toes, to set them carefully to rights, raising up those Parts which are depress'd, and sinking down the prominent, comparing always the sound Hand or Foot with the diseased, for your better Guide and Direction: Then laying on your *Defensative*, with suitable *Compress* of Plaister, upon the Parts requiring them, or such as are most likely to fly out again, over which your Bolsters of Cloth, dip'd and express'd from the *Acet. Vin. & alb. Ov.* Lastly, such *Bandage* as may both secure the Reduction, and  
avert

avert the Fluxion of Humour, to which the Hurts among these Tendinous Parts are very liable, and which truly require a strict *Regimen*, and as great Abstinence, to obviate the Symptoms of *Fever*, *Inflammation* and *Apostemation*, as those of the greater Bones of the larger Limbs.

In these *Fractures* there is no Room for *Splints*, instead of which, *Bolsters* of Cloth, as aforesaid, shaped to the Parts, are to be soak'd in *Oxycrate cum alb. Ov.* and being wrung out, to be laid both on the In as well as Outside of the Part, afterwards carefully rolled on: Besides which, for the better Stay and Support, a *Ferula* of Wood or Tin quilted, or of Pastboard dip'd and cut suitably, may be contriv'd and fasten'd to the Palm of the Hand, as well as Soal of the Foot, which by keeping the same out flat, may prevent the Rising or Starting up of the broken Parts from their proper Places.

### Fractures of the Fingers and Toes.

In the *Fractures* of the *Fingers* and *Toes*, having Of the Fingers and Toes. made a due Extention, and reduced the Bones, you are to surround the same with your *Defensive* and *Roller*, of suitable Length and Breadth, as in the larger we have directed, placing also a couple of thin *Splints* of Paper pasted, on each Side of the Finger, and resting the Hand in a *Scarfe* or *Napkin*; or if the *Toe*, confining your Patient to his Bed or Couch.





## S E C T. IX.

## Of DISLOCATIONS.

Osteology  
absolutely  
necessary to  
the redu-  
cing as well  
Study of  
Fractures  
as Disloca-  
tions, with  
a Perswa-  
sive to the  
Study  
thereof.

AS at the Close of our Fourth Section con-  
cerning *Wounds in general*, we earnestly ex-  
horted the younger Practitioners of this Art, to the  
Study of *Anatomy*, or so far to acquaint themselves  
with the Fabrick of the *Muscles*, and their Tendi-  
nous Origin and Termination, together with the  
Course of the *Blood-Vessels*, and larger *Plexus* or  
Distribution of the *Nerves*, that they might there-  
by be able to foresee their Danger in performing  
any *Chirurgical Operation*, and consequently so far  
as possible to avoid the same: So I think I can-  
not better begin this, than by pressing their strict  
Acquaintance with the *Osteology*, or Knowledge of  
the *Skeleton*; so far especially as concerns the out-  
ward Frame thereof, which is alike needful for  
him who goes about to set a broken Bone, as well  
as one that is out of Joint: For as the *Muscles* or  
fleshy Parts of our Bodies, by the stupendious Ar-  
tifice of the Great Author of our Beings, are geo-  
metrically both form'd and placed thereon, as so  
many *Vectes* or *Levers* on their *Fulcra*; so are these  
last, I mean the *Bones*, by the same supreme *Archi-  
tect*, in their Conjunctions so adapted thereunto, as  
together with the Help of the *Nervous Fluid*, at the  
meer *Nutux Animæ*, may mutually best answer the  
Ends of *Station*, *Session*, and *Progression* of the whole,  
together with the *Flection*, *Extension*, and *Circumrota-*

tion

tion of the several Parts, without which our Bodies would have been incapable as well of *Liberal* as *Mechanick* Arts, however our Minds had been susceptible of *Invention*.

*Columbus* indeed tells us of a *Skeleton* he had presented him by a Physician, in which from Head to Foot there was no *Articulation*, but one continued offisy'd *Compages*; that the Donor, *Joannes Bertonius*, had seen the Person when alive at *Rome*, who was an old Man, and that he could only move his *Eyes*, *Tongue*, *Penis*, *Thorax*, and *Abdomen*, all other Parts of his Body being incapable of Motion.

HIST. 108.  
A Skeleton  
without  
Junctures.

But these Instances are exceeding rare: Proceeding then to our Task, How, I pray you, Gentlemen, is it likely that any one should well reduce a *fractur'd* or broken Bone, who is unacquainted with the natural or proper Make, and Site of the same, before it happen'd to be so fever'd, its *Bearings* and *Bowings* towards the Middle, with its *Apophyses* and *Epiphyses* at each Extreme? Whether one or more Bones, of what Make, and in what they differ (which I have known some so unskilful as to be unacquainted with) make up the stable Part of the Limb?

Again, How meanly qualify'd for Re-placing a disjointed one, must he be, who knows as little of the several Ways of their *Articulation*, or the Conjunction of their said Extremities?

'Tis true, but I think not for the Honour of our Legislature, we want not those who are thus ignorant, and yet take upon them the Office of *Bone-setting*. The *Plough-jobber* in the Country, and the *Porter* here in Town, have been notorious enough for their Exploits of this Kind: And the many *strumous*, apostemated Joints, with *Cariesity* of the Bones, or other rigid, stiff, and distorted Members, constantly presented by the poor Cripple

ple to you for Advice, when 'tis too late, do sufficiently testify what Sort of Cures these People have perform'd.

But for the better understanding this Part of your Duty, while we leave this vile Set of Men to the Sting of their own Consciences here, and the Divine Vengeance hereafter, you must consider *The several Kinds of Articulation.* that there are two general Ways of the Bones *Conjunction*, the one for a *manifest* Motion, the other more *obscure*, and sometimes none at all.

The former is termed *Diarthrofis*, which is subdivided into three Degrees, viz. *Enarthrosis*; *Arthrodia*, *Ginglymus*, which we shall observe to you, in making Mention of the particular *Dislocations*; the latter *Synarthrosis*, also *Symphisis*, of which too there are sundry Kinds, as well with as without an *intermediate* Substance, and from the Nature of which are derived their *Greek* and *Latin* Appellatives.

Thus, where there is only a strait Line, it is called *Harmonia*; where there is Indenture, *Raphoe*, also *Sutura*; where one Bone is fix'd in another, as a Peg or Pin in a Hole made for that Purpose, *Gomphosis*; if fasten'd by Flesh, *Syssarcosis*; by a Ligament *Synneurosis*; by a Cartilage, *Synchondrosis*; by a Tendon, *Syntenosis*; and by a Membrane, *Synmemnisis*; of which also hereafter, when we come to the several Bones by these Means articulated.

But farther, Before you set upon any Enterprize of this Nature, it is necessary you should be provided of your Applications, and other Parts of your *Apparatus*; such are your *Defensative Emplaster*, the same as for the *Fracture*, large enough to encompass the Joint, to whose Flexure and Make it must be handsomely fitted, by Notching with your Scissars: Your *Cloth Bolsters* dipp'd in *Posca*, or the *Oxyerate cum Alb. Ov.* also a *double* or *single-headed*

Apparatus  
for Dislo-  
cations.



headed Roller, as may be requir'd, of much greater Length especially if for the Shoulder and Hip, than was wanting for the *Fractures* either of the Arm or Thigh, because of the Circumvolutions to be therewith taken round the Trunk of the Body, for the better Security of the Bones, upon their Reduction: Lastly, Your *Assistants*, as well by their Strength as Judgment too, where they can be had well qualify'd for the Work: Or these failing, suitable *Instruments* for the same; of which the Antients have provided some, and which modern Improvements have made farther useful.

A late eminent Practitioner once told me, that he had never met with any *Dislocation* that requir'd a *Machine* or *Instrument*, or which was not reducible by the *Hand*, artfully manag'd.

I must own, I have sometimes come after the *Instrument*, and succeeded by the *Hand*; but whether or no the *Instrument* had been rightly order'd, without which meer Force may do more Harm than Good, might possibly admit Dispute: But, doubtless, there are some stubborn *Luxations*, both of the *O's Humeri* and *Femoris*, in rigid, dry, and tough Muscular Bodies, which at sometimes call for greater Strength, than can be exerted by the simple Extension of the *Hand*, (without an *Instrument*) how artfully so ever directed.

'Tis very certain that some of them are, in a manner wholly perform'd by *Art*, with but little Strength: But others want great Force, as well as Dexterity, to assist the same, by a strong Extension of the Limb. Nor must we forget to take Notice of the *Counter-stretch*, at least so far as may secure a Stedfastness in the Parts above, whilst you are pulling those below, without which this latter will be little effectual to accomplish the Work. And thus briefly concerning *Dislocations in general*; from whence

whence we shall come to those of the *particular Bones*, wherein we are more directly to apply what we have now deliver'd in general Terms.

### Dislocation of the Bones of the Cranium.

Dislocation of the Bones of the Cranium.

And first of the *Dislocations* incident to the Bones of the *Skull*, whose upper and backward Parts are conjoin'd by that Species of *Synarthrosis* called *Sutura*, as are those of the Fore-part, viz. the Upper Jaw and Nose, by the *Harmonia*.

To the *Skull* likewise, in some Sort, appertains the lower *Mandible*, to which, borrowing a *Vertebra* from the Neck adjoining, we may, I think, give Instances of almost all Kinds of *Articulation* before enumerated, whether for *manifest* or *obscure* Motion.

Thus, as we have just now observed, in the upper and hind Part you have the *Sutura*; in the fore Part *Harmonia*; in the same Part likewise of the lower Jaw, before the same is ossify'd, as in Infants, *Synchondrosis*; in the Teeth therein fasten'd, both *Gomphosis* and *Syssarcosis*; in the Joining of the *Front* and *Sinciput* likewise in Infants, the *Synimenes*; these all under the *Synarthrosis*.

In the Hindmost Process of the lower *Mandible*, joining in the *Sinus* of the *Os Petrosus*, an *Arthrodia*; in that of the Foremost receiving the Tendon of the *Musculus temporalis* under the *Os Jugale*, a *Syntenosis*; in the said *jugal* Bone with that making the *Orbit*, a *Sutura* also; and lastly, in the upper *Vertebra* before observ'd, with the great *Foramen* at the Base of the *Occiput*, a *Ginglimus*: These, all but the *Os jugale*, under *Diarthrosis*.

Now the greater Part however of these Conjunctions belonging properly to the *Cranium*, being without Motion, and seldom liable to *Dislocations* without

without a *Fracture*, of which in our last *Section*, we intend to quit such of them at this Time, and to touch only upon those of the lower Jaw, which has a manifest Motion, and is more liable to be displaced.

We have already inculcated, that before you pretend to any of these *Operations*, or to go about the Reduction of a Bone out of its Place, you are thoroughly to acquaint your self with the Nature and Condition of the same Bone in its Place, and the several Ways it happens to slip out thereof, that you may the more readily go about the Work.

### Dislocation of the Jaw-Bone.

By this Examination and Enquiry, you will find, that we are now speaking of, I mean the <sup>of the lower</sup> *lower Mandible*, or Jaw, has at each End, where it articulates with the *Os Petrosum*, two *Processes*; the one more sharp or pointed, called *Corona*, which, as before remark'd, entering under the *Os Jugale*, or Cheek-Bone, receives the Tendon of the *Crotaphites*, or *Musculus Temporalis*, whose Motion it obeys in lifting up the Jaw, and shutting of the Mouth; the other Process behind, has a longish Neck, but flattish Head, and is named *Condylus*, by which, being cover'd with a *Cartilage*, as are all the other Articulations of this Kind, it enters a *Sinus*, or Hollow, excavated for that Purpose, in the lower Part of the *Petrosum* or *Temporale*, and is connected also by a Membranous Ligament; which said Conjunction is, we told you, an *Arthrodia*, under *Diarthrosis*, or that for a manifest Motion.

But by this Situation it sometimes happens, especially in Gaping, Yawning, or thrusting any large Body,



Body, as an Apple, Pear, Plumb, into the Mouth; as also in Gaggling, as they call it; by which the Fore-Teeth are much depress'd, the Process we called *Condylus* slips out of its Sinus forwards under the *Jugal* Bone; it being scarce possible, without a *Fracture*, that it should be luxated any other way, so well defended by those about it.

This *Dislocation* happens sometimes on both Sides, at others on one only: If slipp'd out on both, you will find the Jaw hanging down to the Breast, with the Fore-Teeth standing out beyond those in the Upper; the Patient being unable to shut his Mouth, or to speak articulately, as at other Times: There appears also a Straitness on the *Temples*, from the Stretch of the *Muscles*, viz. the *Temporal*, and their Tendons, which occasions Pain, and a Rigidity of the said Parts.

But if one Side only be *luxated*, the Mouth appears distorted, standing as it were a-cross, so that even by this Deformity, it is often conspicuous at the first Sight; especially where no Convulsion has preceded, that Part also being thrust forwarder than its opposite, hanging downwards, nor can the Patient bring his Teeth to meet, or if he could, will they stand direct, as formerly, against each other.

In both Cases, 'tis usual farthermore to have the Mouth fill'd with Spittle, from a Compression of the *Glands*, in this Position of the Jaw, which separate the *Salival Juice*.

The Manner of reducing this *Luxation*, when both the *Condyli* are thrown out, is by placing your Thumbs on each Side, far back within the Mouth, upon the *Dentes Molares*, or Grinders so called, the Patient being on a low Seat before you, with your Hands and Fingers on the Outside of each Jaw, whilst your Assistant stands behind to hold the  
Head

Head steady, with another before to keep quiet his Hands; then pressing downwards with your Thumbs so placed, at the same Time you are to raise the Fore-part of the Jaw to its opposite the Upper, and you shall frequently hear the *Condyle* (if the Work be rightly managed) snap into their Places.

The like, if only one of them be displaced, when you are to make the Pressure on the same Side, as also the Elevation; in which you are to draw more to the one, till the Teeth stand even, and that the Patient is able to shut his Mouth as before.

There is a Method recommended by some, as effectual, when the *Dislocation* happens on one Side, which is a *good Slap on the Chaps*: But waving this, as a very *Empirical* and rude Treatment, I think the less Rustick Usage, or more Artful, more likely also to be successful.

The same Author proposes a couple of little Pieces of Wood, in the Form of small Wedges, whose thinner Ends he places on the backward Teeth, as before directed for the Thumbs, with a Girth or Strap under the Chin; and thus whilst your Assistant, with his Knees upon the Patient's Shoulders, draws up the Girth, you are to thrust down the Wedges upon the Teeth, and bring the *dislocated* Jaw into its Place: But the Way by your Thumbs on the Inside, and your Hands assisting underneath on the Out, I think the surest Method; which are, however, to be defended by strong Gloves, or Rags wrapt round them, from the Patient's biting you unawares, as the Chin rises, and the Heads of the Bone fall back into their Sockets.

A poor Woman, merely by the Force of Tawning, as she lay in Bed, thus displaced both *Condyles* of

of the *Maxilla*, and knowing not the Meaning thereof, sent for her Neighbours; to whom, as well as she could, she related her Case, which was in a very abrupt Manner: Upon which they concluded diversly of the same, some saying it was a *Convulsion*, others would have her *Planet-struck*, with other like foolish Conceits.

They had call'd up several, pretending to Surgery, living near her, who either knew not what ail'd her, or at least which Way to help her: At length putting on her Cloaths, she was brought into the City, and recommended to a Person of more Judgment, who notwithstanding, after some unsuccessful (doubtless because immethodical or in-artificial) Attempts, gave her a Curse, and turn'd her out of his Surgery.

Coming hence, and despairing of Relief, in this Jaw-fall'n slaving Condition, upon her Return she was brought to me, who viewing the Nature of the *Luxation*, set her down on the Ground, and having arm'd my Thumbs as aforesaid, giving Charge to one behind to keep her Head steady, whilst I clapp'd each of them behind on the backward Teeth, with my Hands on the Outside for my farther Help in the same, as I therewith somewhat strongly depress'd them, and with my Palms and Fingers rais'd up, almost at the same Instant, the Fore-Part of the Jaw, the *Processes* on each Side very audibly snapp'd into their Places, the Jaws meeting with the Teeth, in each, direct as before against each other, and so continuing of themselves.

After this, I apply'd a *Defensative* reaching from one Ear to another, with a Muffler, as we directed for the *Fracture* of the same Bone: Giving strict Direction that her Nourishment consisted of *Potables* and Spoon-Meats, at least that she avoided all things



things requiring *Mastication*, or wide Opening of her Mouth, more especially at the Times of *Yawning*, to which she was much subject, moderating that Action all she could, and to turn her Head aside from those whose Jaws she happened to see thus occupy'd.

### Of the Teeth displaced.

In the *Mandibles*, or Jaws, as well the upper as <sup>of the</sup> the lower, are fixed the *Teeth*, as a Nail drove in-Teeth displaced. to a Piece of Wood, which I think is the single Instance of that Articulation we call *Gomphosis*, being farther secur'd also in their *Alveoli* or Sockets, by the Gums, which we call'd a *Syssarcofis*, of which also before.

The *Dislocation* of these Bones is usually voluntary, by way of Extraction with the *Paces*, *Pullians*, or *Punce*, for relieving the cruel Pains they occasion, when cariated or otherwise attended by Fluxion of Humour: But sometimes accidental, as by Falls and Blows; at which Times, if they are only loosen'd in their Sockets, or if turned as it were half out, and hanging in a manner loose by the Gums, yet being immediately clapp'd down into their Places, they will frequently resettle, and grow fast as before the Accident.

I remember when by the Kick of a Horse, a young Girl had the lower Jaw-Bone *fractur'd*, there were likewise four of her Fore-Teeth displaced, one of which was lost, the other hanging with the Points of the Fangs upwards, by a Portion of the Gums.

She having shed her Teeth not long before, Hist. 103. and there being now but little Likelihood of a new Set to succeed, I was the rather willing to try the Experiment, and, if possible, prevent the De-

formity that must ensue so great a *Chasm* left in View: Upon which, before I enterpris'd the Reduction of the *Fracture*, comparing the Sides of the *dislocated Teeth* with their said *Alveoli*, and trying how they best fitted, washing her Mouth with a little warm Claret, and cleansing away the Blood, I enter'd them in their several Stations, and closed the lacerated Gums about them with my Fingers: Then reducing the *fractur'd Mandible*, according to the Manner I have discoursed in the last *Section*, I directed a *Gingilavium* or Mouth-Water, to be used as a *Gargle* for these Parts, prepar'd of the Decoction of the *Fol. Plantag. Equiset. Fol. Ros. Flor. Balaust. Cort. Querc. Gum. Mastich. in Part. aq. Aq. Fabr. & Vini rubri austeri*, adding to a Pint of the Colature, *Mel Ros. & Syr. e Ros. Sic. ā ʒj.*

And thus, whilst the broken Bone was uniting, she suck'd her Nourishment through a Spout, passing in at one Corner of her Mouth; so that by the Time the *Callus* was grown fast, she found her Teeth were so too, tho' it was a long time before she could eat upon them, and they afterwards felt numb'd, as might be expected from the tearing the Nerves off from their Extremities, by the Force at first displacing of them.

### Luxation of the Vertebrae.

Of the  
Vertebrae  
of the  
Neck,  
Breast and  
Loins.

The *Vertebrae* of the Neck, especially the upper, are likewise subject to these Misfortunes, tho' less frequently than other Bones.

These *Vertebrae*, together with the *Spondils* of the *Thorax*, and indeed of the whole *Spine*, or Back-Bone, are the most eminent Instances of that Conjunction we call *Gynglimus*, that is, when the same Bone receiveth and is received of another:

Thus

Thus the descending oblique Processes of each *Vertebra*, receive successively the ascending Ones of those below them.

The first of them is *Metaphorically* called *Atlas*, whom the *Poets* feign supports the greater Globe, the World, on his Shoulders, as this little one, the Head, is upon this Bone, which in its upper Part has two Cavities, articulating by an *Arthrodia*, with as many Prominences at the Base of the *Occiput*.

The Second is called *Epistropheus*, also *Cardo*, the Hinge, for that by Means of its *Dentiform* or Tooth-like Process, entering a *Foramen* in that above, the Head is turned about as a Door upon its Hinge.

And when, by some outward Force, as Falls from on High, pitching especially obliquely on the *Vertex*, this Process is thrown out of its Place, the Neck, in the common Phrase, is said to be *broken*, when, if Relief be not had upon the Spot, the Patient most commonly dies immediately after, as in like Manner it falls out, if any of the other happen by like Violence to be distorted, the Face looks black, standing towards one Side rather than right forwards; he breaths with Difficulty, falters in his Speech, and if the *Luxation* be compleat, by the Compression thereby made on the *Medulla*, *Paralysis*, *Convulsion*, *Cold Sweats* and *Death* soon terminates the Patient's Life: And to speak the Truth, in the Reducing of these *Luxations*, we are somewhat in the dark, by reason of the intricate Structure of the Parts, *viz.* the Intermixture of the oblique *Processes*, receiving and being again received of each other, or the Hazard of their Coaptation in their proper or natural Situation.

But it is not often, that we have Occasion to try our Skill, the By-Standers, with those nearest at hand, being usually the Operators.



The Method however proposed, is to lay the Patient along upon his Back, whilst the Artist sits behind, with his Feet upon each of his Shoulders; then taking hold of his Head, with his Hands on each Side about his Ears, whilst he thrusts down the Shoulders with his Feet, he pulls the Head to him, drawing more especially from that Part to which it inclined, till, by the best Comparison he can make of its direct Figure and due Connexion, he hath settled the distorted or dislocated *Vertebra* in its Place,

Another Way, is to set him upon a low Seat, and whilst the Assistant lays his Hands upon his Shoulders, to keep them down, the Artist regularly lifts up his Head, passing it to or from him, as the Nature of the Case shall require, or perhaps Side-ways, till the Bone is settled therein.

By this it will plainly appear, that no one unacquainted with the *Compages* of the Bones, or the Frame of the Humane *Skeleton*, is likely to succeed either in the present, or any other the like Accidents, happening to that Structure: Since it is found at some Times a very difficult Task, for one who is very conversant therewith, to accomplish his End therein.

These *Vertebrae* of the Neck and Breast are little differing from each other, the first wanting a *Spinal Process*, which, as some *Anatomists* remark, would have offended those two small Muscles of the Head, called the *Obliqui Inferiores*, in the bending the same forwards.

The Five next have theirs divided into two, for the more commodious Insertion of the Ligaments that connect them: The transverse Ones are also shorter than those under them, and their Perforations smaller, each growing still larger than that above it, till you come to the Seventh, reckoning  
from

from the upper, which has only a single *Spinal* Process, like those below, where there is still this farther Alteration, that the transverse Ones have each a little *Sinus* or Dent, with which they embrace the larger Tubercle of the Ribs, whose other Extremity is fasten'd by a *Synchondrosis*, to the Edge of the *Sternum*.

Their four oblique *Processes* we have mention'd before, which inosculating each other, form a *Ginglimus* or mutual Conjunction: On their Inside or Fore-Part they jet out a little, and on the outer or Backside are somewhat concave, having on each of their Sides forward a small Pit also or Impression, exculp'd for the lesser Tubercle of each *Costa*, whose greater, as we said before, were joined to the transverse *Process*.

As to their *Foramina*, the large One in the Middle, is well enough known to be for the Reception of the *Pith* or *Spinal* Marrow, besides which, as they join each other on their Sides, there is a Passage for the going forth of the several Pairs of Nerves, and the Entrance in of the Blood-Vessels, both Veins and Arteries.

To come now to their Number, there are usually reckon'd seven to the Neck, twelve to the Breast, five to the Loins, five or six to the *Sacrum*, tho' ossify'd in a manner into one by Age, and four or five to the *Coccyx*, terminating the same like a Tale turning inwards, and called vulgarly the *Crupper*, or Rump.

Now the Conjunction of these Bones, by their several *Synchondroses*, being very close and compact, their Motion necessarily must be but very obscure, unless those of the Loins, whose looser Connection renders them better able to bend, and again raise up the Trunk above them; and these are the largest of all the rest, still gradually increasing till

you come to the *Sacrum*, with which the lowest Joint; the backward Spines of these are likewise shorter than those above, and turned somewhat upwards, their jointing also being different: For as our Author, Dr *Gibson* well observes, as in those of the *Thorax*, the upper oblique *Processes* were knobby, and the lower hollow to receive them; In these there is the Reverse, the upper being hollow, and the lower protuberating, unless it be the last of the *Thorax*, which has both its ascending and descending oblique *Process* excavated, to receive the Heads of the *Processes* of the last but one of the *Thorax*, and the first of the Loins.

And thus having given you a Sketch of the whole *Spinal Compages*, whose Use is for the Passage of that Production of the Brain, which from this Part is here called *Medulla Spinalis*, whence by certain *Tubuli*, or small Pipes, the *Fluidum Nervosum*, or *Sensitivum quid*, is conveyed to the Trunk and Limbs, the Use of which being so noble and excellent, it will easily follow, that as in Hurts of the Brain itself, the Fountain-Head, there commonly ensue the most formidable Symptoms; so here likewise, if the *Vertebrae* happen to be suddenly distorted, much more entirely *luxated*, this *Second Brain*, as we may call it, being compress'd, the Dispence of the said Fluid or *Vital Energy* must be intercepted, and consequently *Paralysis*, *Convulsion*, with a total Eclipse of the Animal Faculties come on presently after.

This, I say, premis'd, I shall farther inform you, that when the Accident befalls those of the Neck, the Sick generally loses the Use of one or both his Arms, as one or both Sides of the Spinal Marrow happen to be affected; when those of the Loins, the Legs in like Manner: And if the Compression be very great, his Urine comes away involuntarily,



rily, and there follows a general Resolution of all the Nerves below.

In order to the Remedying of these Accidents, where there is a Prospect thereby of saving the Patient, the Operation must immediately be set about, as above directed, making suitable Extension by the Head and pressing down the Shoulders.

In those of the Back and Loins, the Patient being laid prone upon a Table, the Extension is begun by two strong Men at each Armpit, whilst two others are making a Counter-Extension at the Hips, and the Artift, seeing a fit Time for his Purpose, forceth the distorted *Spondil* into its Place.

This simple Extension by the Hand failing, the Antients have propos'd the same to be made with *Pullies*, and accordingly contriv'd several *Machines* or *Instruments* for that Purpose, which are to be met with in some of their Works, delineated in Sculpture; among which particularly those of *Ambrose Parey*, who farther adviseth, as *Monsieur Vaughion* also takes notice in his *Chyrurgical Observations*, whilst Extension is making, to wrap up a couple of Sticks in Cloth, and to lay them on each Side of the *Spine*, as the Patient lies along upon his Face, which must be so thick as to prevent any Harm to the *Spinal Processes*: This done, you take a Rolling-Pin, and with both Hands strongly force down the two Pieces of Wood, till the same bearing against the distorted *Vertebra*, drives it in betwixt its Fellows.

But this is only practicable in the Distortion outwards, and then too I fear, but rarely with any Advantage.

When the *Spondil* is depress'd or beat inwards, the Case, if possible, is still worse, and the Patient

languishing, under some of the Symptoms aforesaid, soon after dies: Tho' here also our *Theorists* talk of another Experiment, which is, by making Incision upon the Place, and putting the Trunk of the Body, as before, upon a Stretch, to take hold of the *Spinal Process* with a Pair of *Forceps*, and lift up the *Vertebra* that it may lye even with the rest.

But, I fear, I have already made too long a Digression, about an Operation so easily talk'd of, but difficultly, and I think, rarely put in Practice, or, if practis'd, so little Likelihood of Success to attend the same.

There is however another Sort of these *Distortions* I must just mention to you, I mean those which are made gradually by a *Congestion* of Humour, loosening the *Compage* of these Joints, and after protuberating, they occasion those *bunched* or *crooked Backs* we often meet withal; especially among weakly Children, and such we call *Ricketty*: Tho' I have known the same Misfortune to follow after a Fit of Sickness, by way of *Metastasis* or Translation, as also from Blows and Falls, when sometime after the *Vertebræ* have born outwards, and sometimes one of the *Scapula's* behind, or the Breast-Bone rising before, makes an acute Angle with the Sides; by which the Cavity of the *Thorax* being straitned, and the *Lungs* not having their free Play, the Patient becomes *Anhelous* or *Asthmatic*, and very rarely sees Length of Days, at best spins them out with great Toil and Labour upon this Account.

Nor are we here wanting of *Pretenders* to the Cure of these *Distortions*, tho' the Performance has rarely, I think, if ever, answer'd the Pretence or Promise,

*Chalybiats* and *Hepatics*, with other suitable *Deobstruents*, to open the obstructed *Viscera*, reperate the *Tubes* derived thence, mend the *Chachetic* State of the Blood, and invigorate the *Muscular Fibres* by the *Cold Bath*, which gives a new Spring to the same, I have in some such Cases found very serviceable : But instead of cramping these infirm and tender Constitutions, with *Steel Bodice*, or *Hoop-ing* them as it were with *Iron*, which disables them from those Exercises, so necessary for their Healths, and bettering their Habits, I have always advised the Parents or Relations of such Children, to forbear this cruel Usage, and content themselves externally with a *Pad* of Cotton quilted, so far as possible, to conceal the Deformity, and give them all the Liberty of Action they could bear ; it being a standing *Maxim* with me, that *such as Nature in this wise has made Crooked, Art will never be able to make strait.*

I once knew an impudent bold Pretender to these Cures, make a Demand of 200 *l.* of a Lady, for his Steel Contrivances and three Years Attendance upon her Child, whose Death I dare be confident had been thereby hasten'd, and the bearing out of the *Vertebrae* still farther increased, notwithstanding his warranting to make the Child a compleat Shape.

### Dislocation of the Coccyx, Pubes, and Ileon.

We have already observed, among the *Fractures*, the *Disjunction* (for so I chuse to call it, rather than *Dislocation*) of the Bones of the Coccyx, when the same, by some external Force, are beat in upon the *Rectum* ; besides which, we are told, that

at



at some Times, tho' we forget then to notice it, as in hard Labours of Women with-Child, the same Bone is forced outwards, the *Ossa Pubes* being likewise disjoined, and those of the *Ilea* separated from the *Sacrum* at the same Time: The first of which, as more pliable and yielding, carries somewhat of Probability, but whoever considers the firm Uniting of the other, by a *Synchondrosis*, or strong Cartilage, which requires a Knife, and often a Saw, to divide them at other Times, will find it difficult to reconcile this Report: Yet *Hildanus*, whose Judgment and Veracity were never, that I have heard of, called in question, assures us, that he was sensible of the *Disjunction* of these Bones, in the Delivery of his own Wife.

Hist. 104.

But pretermittng these, which, if Fact, require only Rest and Quiet for the Replacing as well as Resetting, we come next to the *Dislocation* of the *Clavicle* or *Collar-Bone*.

### Dislocation of the Collar-Bone.

Of the  
Clavicle or  
Collar-  
Bone.

This Bone, whose Use, as we observed among the *Fractures*, is principally to keep out the Shoulder from the *Sternum*, altho it serves also, together with the other *Process* of the *Scapula*, called *Ancyroides* or *Corasoides*, in its Conjunction with the *Acromium*, to prevent a *Luxation* upwards of the *Humerus*, has a double *Articulation* by *Synathrosis*, the one by its flatter Extremity with the *Acromium*, aforesaid of the *Scapula*, from whence, by some outward Force, it sometimes riseth upwards and forwards; the other, by its thicker and more knobbed End, entering a little Pit or Impression formed for that End near the *Jugulum*, upon the *Sternum* or Breast-Bone, whence also at sometimes it

## Sect. IX. Dislocation of the Coller-Bone.

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it starts, tho' not so often as its other Extremity, whose Articulation is more expos'd to these Accidents.

When that End next thereto adjoining flies off from the *Process* of the *Scapula*, the *Acromium* jets out, and the Patient cannot raise up his Arm but with Pain and Difficulty, which falls and is depressed.

This *Dislocation*, or *Disjunction* rather, like that of the *Fracture* of the same Bone, is more easily reduced than retained, by reason of the slight Fastening which it has with the *Processus*: However the Method is much the same as for that, *viz.* by pressing out the Top of the *Humerus*, and bringing the two Extremities again together, after which, by your *Plaster-Compress* well fitted, with your *Defensive* and *Bandage*, as have been directed for the *Fracture* here situate, will be necessary to secure it from flying out again.

Mr. Cowper has intimated in his Writings, that this *Luxation* had been unobserv'd by most Authors; but, if I mistake not, those of any Note who handle this Part of *Chirurgic Practice*, especially among the Moderns, have taken Notice thereof: And it might seem strange, that a Case so frequently occurring, should pass unheeded by any of them.

If its rounder and thicker Extreme is thrown up from the *Sternum*, for downwards it cannot fall, being secured by the subjacent first Rib, the Method for Replacing is the same, by thrusting out the Tip of the *Scapula*, thereby making way for sinking the protuberating Head into its proper *Sinus*, in the *Sternum* aforesaid; after this, by Compress and Deligation, to prevent its rising up again.

Dislo-

## Dislocation of the Ribs.

Disloca-  
tion of the  
Ribs.

The *Ribs*, which are usually twelve on each Side, sometimes thirteen, at others, tho' rarely, eleven; the Author last mention'd says, he has observed twelve on the one Side, with but eleven on the other: These, I say, are also liable to a *Luxation*, by some outward Force impell'd at their Extremity next the *Spine*, it being scarce possible they should be this Way parted at the *Sternum*, where they require a strong Knife to divide them, and with which they are so connected by their *Synchondrosis*, as to make together as it were one continued Bone.

'Tis true they will often protuberate, and together with the *Apophyses* of some others, particularly those at the Wrists and Ankles, appear knotty, as in the *Morbus Anglicus Infantilis*, we call the *Rickets*: But here the *Sternum* riseth also forwards, as well as the *Scapula* sometimes backwards along with them, making the *Bunch* both ways, as we have already observed; and for which, that I know of, there is no (at the least, Chirurgic) Cure.

But when the lesser Tubercle is forced off from its *Sinus* in the *Vertebrae*, or the greater from the transverse *Process* with which we before acquainted you, it was articulate: If thrown outwards in thin People, or much emaciated by Sickness, it is perceptible on the Outside of the *Spine*, and must be gradually depress'd, and artfully replaced by the Hand and Fingers, after due Extension, sinking the same down into its Place.

Some propose, as the Patient sits upon the Ground, the Raising of the Arm on the same Side, above his Head, which at the same Time eleva-



elevating the *Costa*, makes way and facilitates the Reduction.

Others, pulling his Arm over a Door, suspend the Body thereby, by which the *Thorax* being raised, the prominent *Rib* is now depress'd, by the *Surgeon* standing behind.

Again, if the *Luxation* happens inwards, there will be a manifest Vacuity to be felt, by hard Pressing with your Finger on the Place it is flown from, with an Inequality round about the external Surface: The *Pleura* also suffers by the Extremity of the *dislocated Costa*, bearing hard against it, exciting Fever with Inflammation, Cough also, and Difficulty of Respiration.

In order to redress this Grievance, having try'd by a gentle Extension, and done what you can by your Fingers; the Patient likewise enlarging the Cavity, by the Management of his Breathing, for your farther Assistance, as we have hinted in discouraging of the *Fracture* of the same Part; but ineffectually, the Symptoms also urgent, the last Remedy is Incision, as we there also observed, and the Finger or Instrument introduced, to raise it up into its Place.

But these Operations, as I have already acquainted you, are rather *Theoretic* than *Practic*; nor is it often, I think I may say exceeding rarely, we have occasion for the Experiment of this Nature.

In the Joining of the *Ribs* I shall observe farther, that it is only the nine uppermost that have this double Articulation at the same Extreme, before observed in our Description of these Parts, viz. the one collateral to the fore Part of the Bodies of the *Vertebrae*, the other to that of the transverse *Process*, the three lowermost being articulated singly to the fore Part of the *Vertebrae*, and touch

touch not the transverse *Processes* : The lowermost neither having its Cartilaginous Extremity at the other End, fasten'd to the Rib above it, as the rest of those we call the *Costæ Nothæ* : But its Extremity standing out, give Rise, as that curious *Anatomist* Mr. *Cowper* takes Notice, to a Part of the *Musculus Abdominis oblique descendens*.

### Dislocation of the Sternon, and its Cartilage named Ensiformis.

Of the  
Breast-  
Bone, and  
Cartilago  
Xyphoides

We have before made mention of the Depression of this Bone by outward Force thereunto offer'd, at the Bottom of which, in its Middle, there shoots out a cartilaginous Appendix, called in Greek, *Xyphoides*, by the *Latines*, *Mucronata*, also *Ensiformis* ; which, by like Violence, is liable to a *Subluxation* or Depression, and by which the upper Orifice of the Ventricle or Stomach being offended, which is called otherwise *Scorbiculum Cordis*, by reason of the superiour and inferiour *Plexus* of the *Stomachic* Nerves here meeting, very dreadful Symptoms do arise, as *Vomiting*, *Cardialgia*, *Convulsion*, *Inflammation*, *Gangrene*, and *Death* soon after, if the Oppression be not removed before this last Symptom comes on, which is to be attempted, as we remark'd formerly of the *Sternon* or Breast-Bone beat down, by laying the Patient supine, or on his Back, with some convex Body under the Shoulder-Blades, at their Basis ; then suddenly, or by repeated Jerks, pressing down the Tops of his Shoulders, whilst an Assistant does the same with his Hands upon each Side of the Ribs, by which the Breast being raised, the depress'd *Xyphoides* riseth also therewith : Cupping-Glasses and the  
Pitch-

## Sect. IX. Dislocation of the Sternon, &c.

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Pitch-Plaister are here likewise in Use, to answer the same Intention.

Contrary to this, there are moreover frequent Instances of the same Bone protruding or thrust outwards, but here we have little Danger from the rising Cartilage, tho' much from the Disease producing it, I mean the *Ascites* and the *Hydrops Pectoris*, of which it is only a natural Consequence, from the Distension of the containing Parts, by the Waters lodg'd in those Cavities, and admits no other Remedy, than what is directed for the *Dropsy* its Parent, with which it stands and falls.

But quitting of the Trunk, we shall now hasten to the Limbs: And first to that of the *Humerus* or Shoulder-Bone.

### Dislocation of the Shoulder-Bone.

This Bone, I think, furnisheth more of these Accidents, at least what may properly be call'd *Dislocation*, <sup>Of the Shoulder</sup> than all the rest of the Body, as being more in the way of Danger, both in Lifting and other strong Exercises, as well as Falls and the like Casualties, when it is natural to throw out these Parts, for the Safe-guard of the Head and Face: And tho many Times a seemingly slight Occasion has given Rise to the same, yet we often meet with rough Work in setting them to rights, or reducing the *Luxation* thereof.

This Joint, you know, is compounded of the Head of the *Scapula*, or Shoulder-Blade, which hath a small Cavity, enlarged and made deeper by the Cartilage it is tip'd with, and the *Apophysis* or upper Part of the *Os Humeri*, called the *Shoulder-Bone*, cover'd over with another, and adapted to the said Cavity, by an *Arthrodia*:  
Which



Which is when a small round Head is receiv'd and lodg'd in a superficial Cup or Hollow, fram'd for that Use by *Nature*, in the Formation of the Parts.

We have already taken Notice of the two other *Processes* of the *Scapula*, which, tho' not immediately concern'd in the Juncture, serve yet by the *Tendinous* Insertions of the Muscles into the same, for the farther strengthening the Articulation thereof, and preventing the Head of the *Humerus* from flying upwards, particularly the *Coracoideus* or *Coracobrachieus*, which springeth from the *Coracoides* Process of the *Scapula*, and ends about the Middle of the *Os Humeri*: Likewise one of the Heads of the *Biceps* entering, which being partly *Tendinous* and partly *Fleshy*, ariseth from the other Process called *Ancyroides*, from whence descending by the Inside of the Head of the said *Humerus*, it meeteth with its Fellow, and both joining together, become a strong fleshy Muscle, which by a single, but large Tendon, is inserted on the Inside of the Head of the *Ulna*.

. I need not tell you how often this *Tendon* has made my Heart ach, and I dare say many of yours, when about to open the *Mediana* lying very obscure and deep, and perhaps, do what you can, directly over it.

For obviating this Danger, you will find great Advantage in the diverse Management of your *Ligature*, which as the Arm is extended, by drawing the same outwards in making your Circumvolution, you carry the Vein along with you that Way, as by the like Management thereof inwards, you shift it the like Distance from the subjacent Tendon, which if but a Straw's Breadth, is sufficient for a dextrous Performance of the Operation.

The like Alteration is effected, after making your *Ligature*, by taking the Patient's clenched Fist  
into

into your Right Hand, and turning the Thumb either inwards and downwards, or outwards and upwards, as you see best for your Purpose: During which Pronation or Supination thereof, if you lay the Fore-Finger of your Left on the said Tendon, you will plainly perceive it to vary its Position, and accordingly to distance the Vein above.

There is this Inconvenience will indeed attend the drawing off the Vein by the Ligature, from the said Part, that after Removal thereof, the Orifice in the Vein lying now oblique from that in the Skin, the Blood diffusing in the Interstice raiseth a *Sugillation*, sometimes of great Extent all round about; yet that, altho' frightful to the Patient, gradually wears off like the other *Echymosis*, from a Blow or Fall. But returning to our Subject:

The *Humerus* is liable to slip downwards, forwards, and according to some, tho' I think very rarely, backwards also.

We do indeed at sometimes meet with the Head of this Bone under the Pectoral Muscle, but for the most part, or, speaking generally, it falls down between the Tendons of the *Musculi Subscapularis* and the *Biceps externus*, nesting itself in the *Axilla* or Arm-pit: In getting it from whence, unless Care be taken, as it comes to the Brims of the little Cup or *Sinus* in the *Scapula*, to lift it into its Place, it slips forwards through the irregular Extension, and makes that *Luxation* secundarily only: However, I think I may say modestly, that I have met with Twenty, first lodged in the *Axilla*, to One upon the Breast.

The *Diagnostic* Signs of this Bone displaced, are not altogether to be inferr'd from an Inability to its usual Motions: For that sometimes will be owing to a Wrench or violent Distortion of the Li-

Diagno-  
sticks of the  
Shoulder  
dislocated.

gaments and Tendons: But looking strictly on the upper and outer Part of the Shoulder, you may, upon a very nice Inspection, perceive the Muscles to lie more lank and flaccid, than those on the other Side, exposed for that End also naked before you, having lost their Support the Head of the said *Humerus*, which bore them out, by which that Part lies now flatter, and less plump or roundish, than its Fellow; and even in full and corpulent Bodies, by pressing your Fingers hard in upon the Part, you will find Admittance for the same into the Cavity, which is now left by the Head of the Bone, at least-wise feel the Edges of the Cup it has forsaken.

Again, If thrusting your said Fingers as strongly into the *Axilla*, whilst the Arm is carefully lifted by an Assistant into an *Horizontal* Position, that is, the Hand and Fingers making a strait Line with the Head of the *Scapula*, you will feel the *Apophysis* of the said *luxated Humerus*, like some hard and solid Body, lodged therein, and denying that easy Admittance you may find in the opposite Armpit.

A further Evidence of this *Luxation*, is the Patient's Elbow bearing outward from his Side, to which he cannot suffer it should be brought close without great Pain, nor will it be retained in that Figure, being kept out by Means of its Head lodged as aforesaid in the *Axilla*; by which he is enabled much easier to move his Arm backwards, than to bring it forwards to lay the lame Hand upon the sound Shoulder, or his Fingers to feed himself: Nor did I ever know any one under these Misfortunes, that without the other Arm, or some Assistants to support it, was able to keep the same without falling down again involuntarily, upon a level Extension, altho brought up for him by raising



sing it, as a Trial, into the same; much less, if higher elevated: And this not through any Defect in the *Lever*s the *Muscles*, but in the Stay or *Fulcrum*, to support the *Pondus* they lift up.

But besides this Enquiry of the Surgeon, the Patient will often complain, that he feels somewhat unusual and hard in his Arm-pit, and comparing his Arms as they hang down by his Sides, the same one will be found somewhat longer than its Fellow.

As for the *Prognostics* of this particular *Dislocation*, if the same be recent, and proper Help administered, 'tis very rare, I think, but that either by the simple Extension with the Hand, or the farther Aid from Instruments well managed, we succeed in the Enterprize: But where the Case has been for some Time overlook'd, or when by the Symptoms of Fever, Inflammation or Fluxion attending, forced to be delay'd, there will be found the greater Difficulty, and Hazard of Speeding in the Undertaking: Yet at two Months from the Accident, I have reduced this Bone, though the same had been twice before ineffectually set upon, and the Patient, after Length of Time, retriev'd as good Use of the Limb as before. I cannot say, in Thirty Years, that I have known more than Two who have failed of their Cure, by some Means or other, where I have been concern'd; and one of them, I think verily might have had hers, if, through Peevishness at a Miscarrying in the first Attempt, she had not oppos'd a second Effort by other Methods and farther Assistance, in order to her Relief.

There is another Sort of these *Dislocations*, happening at some Times, but I think oftener befalls the Joint of the Hip, from a Congestion of Humour loosening the Ligaments, by which a *Subluxation*

happens, when the Head of the Bone comes down even as it were with the Tip of the Cartilage; or a compleat one, falling quite out: And these are Cases truly deplorable; for tho' you may meet with no great Trouble in reducing the prolapsed *Apophysis* to its Socket or Cavity; yet, by reason of the relaxed Ligaments, it slips presently out again. But now to the Cure:

Several  
Ways of Re-  
duction  
without an  
Instru-  
ment.

There have been many Ways invented for the Replacing this Bone out of Joint, as well by the *Hand* as *Instruments*, which in some robust or strong Muscular Bodies, whose Fibres are over tense, dry and rigid, are oftentimes requir'd.

Of the first Sort, *i. e.* by the *Hand*, I have often practis'd the following, with Success.

When by Enquiry as above, you have satisfy'd your self that the Head of the *Humerus* is displaced, and lodg'd in the *Axilla*, you are to set your Patient upon a Stool or Chair, one of your Assistants standing over him, with both his Hands to press down the *Scapula*, that it may not rise with the Head of the *Humerus*, whilst another on the Side opposite, puts his Arm round the Patient's Body, with his Hands towards the Arm-pit, whose Office it is to make the *Counter-Extension*, pulling the Trunk of the Body to him with all his Strength, whilst a third is ready with a Napkin turn'd round above the Elbow and twisted, setting his Foot against that of the Chair or Stool, for his better Stay and Exerting himself in drawing out the Arm, a fourth grasping also with both Hands at the Wrist below, and assisting in the intended Extension.

These being all set, and ready at their several Posts, let the Arm be raised in a strait Line with the Top of the Shoulder; then order that both the Extension and the Counter-Extension be begun, at  
first

first more gently, that if the lesser Force will do, the greater may be avoided, and the Limb less weaken'd thereby; whilst your self standing on the Outside of the Arm, with your Fingers close up in the *Axilla*, and your Thumbs on each Side, to observe the Motion of the Bone, and guide it coming forwards, which so soon as you can get behind the Head thereof, you may facilitate; and bringing it even with the Brims of the *Scapula*, kept down as aforesaid, raise the same up to its Socket, into which it will sometimes very audibly knap or cluck.

This Way by the Hand and Fingers, is not only the securest of all others, but, if your Extenders are well qualify'd for the Work, (as well in Strength as Capacity other-ways) as likely to succeed as most others, by the simple Extension or manual Undertaking only.

Mr. *Wifeman*, at these Times, orders the Elbow with the Palm of the Hand turn'd outwards, to be brought suddenly towards the Spine of the Back, with the one Hand, whilst with the other in the *Axilla*, the Head of the *Humerus* is raised, an Assistant keeping down the *Scapula* to receive it.

If the Head of the Bone is thrown forwards upon the Breast, the Elbow is order'd to be held down in like manner to the Spine, whilst the Artist, with his Hands, forceth back the Bone into its Place.

How far these Methods may succeed with Children and young People, of a laxer Frame, whose Muscular Fibres are more ductile, yielding, soft and pliable, I shall not dispute here: But in hard labouring and strong Bodies, where the said Fibres are more tense, and the Muscles themselves, as we say, brawny, more Assistance and greater Strength, I am sure, are generally wanting. I have,



'tis true, in these tender Subjects, sometimes replaced this *Dislocation*, by turning in this manner the Hand behind, with the Palm outward, which Motion naturally throws the Head of the Bone forwards, so that only laying my other Hand on the Top of the Shoulder, to keep the same from rising, the Bone has slip't in without more to do, or any farther Trouble.

Another Way, When the same is thrown down far into the *Axilla*, requiring still greater Force to dislodge, is with the same Assistants, placed as in the first *Apparatus*, unless that the Patient be set lower, if not all upon the Ground, by taking into your own Hands a strong Napkin, in the Middle of which a small Globular Body, as a Ball, for Want of which I have sometimes used a common Washball, is wrapp'd up: This being placed against the Armpit, the two Ends of your Napkin thus folded, are brought close up on each Side thereof, and after the Extension and Counter-Extension are begun as formerly, so soon as the Head of the Bone gives way, and is moving out, with both Ends of the said Napkin rightly manag'd, without wriggling to either Side, you are forcibly to lift up the same in a right Line, lest otherwise drawing more especially inwards, as it comes out, it slip forwards under the Pectoral Muscle, (a Case I have known fall out) till you hear the disjointed Bone slap into its Place; or if you hear it not, by reason of the Patient's Roaring, or other Noise about you, yet may you inform yourself quickly that it is there arrived, by the Patient's sudden Ease, the Cavity in the *Axilla* being now clear and free from its late troublesome Guest, and the Hollow on the Outside of the *Scapula* again fill'd up, the upper Part of the *Humerus* appearing round and full as before, or like its Fellow: He  
can

can also now bring his Elbow close to his Side, without complaining, and his Arm forwards as well as backwards.

In this last Way of Reduction, if greater Strength be requir'd, in the Place of a Napkin, a Leather Strap like that of the Shooe-makers, or for Want thereof, a narrow Horse-Girth is made Use of, the Ends of which (having first gaged a proper Length) being strongly fasten'd together, the Patient's Arm is put through, but first of all the Ball as before-mention'd wrapped up in the Napkin, must be thrust close up to the *Axilla*, and the Ends of the Cloth or Napkin, in which it is wrapp'd, spread on each side, that the Strap or Girth may not offend the Arm: Then fixing steadily the midst of the lower Part thereof, upon the said Ball under the Arm-Pit, put also your own Neck, and, if you please, one of your Shoulders through the upper Part, when stooping just over your Patient, with the Flat of your Hands resting on the Top of his Shoulder, instead of any Assistant thus employ'd in the other Way of Reduction, whose Place you not only well supply, but augment very much your commanding Power in the Elevation.

Thus ordering the same, as we have already above directed, so soon as you perceive the Top of the *Humerus* to advance, (it being to no purpose sooner) raise up your Body with the Strap upon your Shoulder forcibly, and you shall frequently hear the Bone cluck into its Place: At the same Time it will be also convenient, that an Assistant, with his Hands on each Side the *Axilla*, secure the Girth or Strap from slipping off the Ball, and the Head also of the *Humerus* flying else-where.

The last Method, without an Instrument, which I have practised, and by which I have reduced, or, (assisting at the Reduction by others) seen reduced, some of these Misfortunes which have been thought irretrievable, because the Instrument had not succeeded, is that by the *Heel*, which has not often failed me.

In order to this, your Patient is laid along supine, or upon his Back, on a Quilt or Blanket spread upon the Floor, naked from the Waste upwards, at least on the Side affected, as he is to be in all the other Ways of Reduction: When sitting down close by him, with your Head towards his Heel, let an Assistant sit behind, with the Sole of his Foot (having taken off his Shoe for the Work) upon the Patient's Shoulder, having the two Ends of a strong Napkin, in the Midst of which the Ball is wrap'd up, and placed in the Arm-pit, as before, in his Hands, whilst a third Person is employ'd to keep the Body steady: Then clapping your own Heel of the same Side, close up against the Ball in his Arm-pit, with your Hands at the same Time taking fast hold above his Wrist; and thus prepar'd, whilst your Assistant above helps in the Counter-Extension, you with your utmost Strength are to pull downwards, drawing thereby the Head of the *Humerus* out of the *Axilla*, thrusting your Heel against the Ball, and finding it give way, turning the same a little outwards, you will throw the Bone into its Socket, and accomplish your Work: After which you must immediately slacken your Extension, lest, by over-halling the Ligaments and Tendons, you render the same incapable of keeping its Place.

In these two last Ways, by the *Girth* and *Heel*, the Artist has certainly a vast Command in exerting of his Strength, whilst his Hands, resting on the  
the



the Shoulder in the first Way, are, as it may be said, a *Fulcrum* or Stay, on which he is able, by means of the *Girth* upon his Shoulder, to raise up the Body together with the impending Weight: The like of the thrusting one Way with the Heel, and the Arms drawing to the contrary: From whence, as our late *Mathematical Physicians* have laid it down as a *Proposition* indisputable, *That the whole Strength of an Animal Body, is the Force of all his Muscles taken together*: So may we infer, *That almost, if not the Whole, of the Muscles of an Humane Body are at these Times in Act.*

Now if, as one of these Gentlemen asserts, the *Flexor Policis*, singly taken, be equal to 3720 lb Weight, to what an immense and incredible One must that of the whole Number amount! Hastening now again to our Subject.

These, I think, are the most usual Methods of Replacing this *Luxation* singly by the *Hand*, or without any *Instrument*, which, if well order'd or manag'd by Assistants used to the Work, all, if they could be had, Professors of the Art, much Pain and Risque, or Hazard by those *Instruments* might often be avoided: For, as before remark'd, altho' great Force be oft requir'd in the Extension, yet that singly without Art conjoin'd will not avail; and you may tear the Limb from the Trunk, before you replace the Joint, if unskill'd in enterprising or going about the same.

For Instance: If your Ball in the *Axilla* be not duly plac'd, and the Elevation of the Head of the Bone prolapsed, as rightly timed to suit its coming even with the Brims of the *Scapula*, by raising sooner, you only lift up the Neck of that Bone, and by deferring longer, or lifting out of a strait Line, either slip it under the Breast, or tear the Fibres to no purpose; whence, if it be afterwards replaced,

replaced, there may, thro' the great Weakness of the same, be Hazard of its falling out again, as in that arising by *Congestion*, before also taken notice of.

One thing farther I thought proper to intimate, in some of these Ways of operating, particularly the first; that the Persons employ'd in making the Extension secure to themselves a good Footing, by which the same is carry'd on with double the Force it would be otherways: And farther, that when the *Luxation* is forwards, no Ball or other Globular Body be thrust into the Arm-pit; but having made the Extension a little oblique, rather drawing from the Breast, than outright from the *Axilla*, let the Surgeon with his Hand forward the Return of the Bone, whilst another, with a single Napkin underneath, lifts it up, as it comes towards the Arm-pit, into its Socket: In a Word, whether the Extension be made one Way or another, so soon as you discover the Bone sufficiently advanced, the sudden Sinking of the Elbow to the Side, by the Extenders, contributes as much as any thing to thrust the Bone up to its Place.

Several Instruments  
for Reducing the  
Humerus.

The *Instruments* used for the same Work are the *Coulstaff* or *Lever*, with a Wooden Ball fixed on the Middle to enter the Hollow under the Arm, also a Wooden-Pin on each Side to enclose the same; and whilst the Limb is, as in the first Way of Reduction, upon the Stretch, the *Instrument* is raised by a couple of strong Men, in order to throw it up again to its Place.

But this *Instrument*, by reason of the Mischiefs thereby ensuing, such as the fracturing or snapping off the Head of the *Humerus*, is not in so much Request now, as in Times past it has been: I must own I have formerly used it, but confess I prefer the

the *Ambi* thereunto, which is the safer, and when duly manag'd as seldom fails of Success as any; tho' here also it is possible for an Accident of like Nature to happen, by the too hasty and violent Pressing down of the Arm, before the Top of the *Humerus* is brought out of the *Axilla*.

The *Skrew* with the *Crutch-Head* and *Turniket*, is a later invented *Instrument*, and accounted surer by some, as well as safer than the *Ambi*: And where the Bone is beat into the Arm-pit, that all other Ways seem less likely to effect the Work, or where the latter have been attempted in vain, as in some whose Muscles are exceeding tense, or in the squallid, tough, and, as they commonly name them, raw-bon'd People, the *Crutch* with *Jack* and *Pulleyes*, called the *Tackle*.

This is an *Instrument* in the Form of a *Crutch*, for the Convenience of carrying, made in two or three Joints, the *Crutch-End* having a Wooden-Ball rising out in the midst of its Hollow to thrust under the Arm, like that on the *Skrew* before mention'd, with an Iron-Spike at the other Extreme for its steady fixing on the Floor.

In the Use of these two last, contrary to the *Ambi*, where the Patient sits down on the Side thereof, he is now standing and supported, whilst the Head of the sloping *Crutch* being placed in the Hollow of the Arm, and there kept close by the Surgeon, the Hand or Wrist is brought down by the Side of the same, being first well defended by soft Cloths, from galling or being chafed in the Extension, and made secure by proper Ligature to the *Pully*, fasten'd also below to the Floor, by which you draw out the Limb as you please, and being come out far enough, raise by the Head of the *Crutch* into its former Seat.

These



These *Instruments* are all so common now, especially in *London*, as to need, I think, no other Description; but in their Management I must again inculcate, that it is highly necessary some expert Proficient at this Work, or good Artift, should be always placed at the Head of the same, with his Hands about the Arm-pit, that, as he finds Occasion, he may alter its Position, slackning the *Turniket* a little for that End, and taking the Nick, as we say, of Time, perceiving the *Apophysis* coming out, by suddenly ordering the Arm to be depress'd, he lifts up the Bone, as aforesaid, to its pristine Seat.

There are besides these now mention'd, several other ways of setting a *Shoulder* out of Joint, made mention of also by famous Authors: Such as hanging the Patient by the lame Arm over a tall Man's Shoulders, suspending the same upon a Door, or the Rounds of a Ladder, and hastily with-drawing the Chair or Form on which he stood; by which they tell you, that the Head of the *Shoulder-Bone* is not only drawn out of the Arm-pit, but raised also at the same time into its *Receptaculum* in the Shoulder-Blade.

But these and such like rustical Experiments are fit only for *Plowmen* and *Porters* to put in Practice, who neither know when a Bone is out, altho' representing every Accident to be so, neither yet how to put one in that really is out; but practise these with the like rude Feats by way of Amusement, to delude the Populace.

To proceed, and it is, I think, time, supposing the Work of Reduction, by one or other of the former Methods, finish'd, and the Joint set to rights, your *Defensative* and *Bandage*, as for the *fractur'd* and *distorted Clavicle*, are to be apply'd: A small Ball, or other somewhat softer but roundish Body, being

being first placed close in the *Axilla* or Arm-pit; wrap'd up in a Cloth, the Ends of which are brought slanting over the Top of the Shoulder, whilst the Elbow, after finishing your *Bandage*, is likewise close down to the Side, which if well secur'd in the Posture, 'tis scarce possible for it to relapse: Upon which Account, as a Turn or two may be made round the Arm at the Conclusion, to keep that Dressings smooth, so likewise may it not be amiss, to take at least another over the Outside thereof, quite round the Trunk, that may inclose and secure it in the said Position, that heedlessly or at unawares it may not be raised thence.

One Caution more I think necessary to give you, which is, that in the Use of *Instruments* particularly, and indeed in the common simple Extension, you always take Care that the whole Arm above, as well as below the Elbow, and especially round about the Arm-pit, where the Head of the *Instrument* is placed, are well defended by soft Cloths, from being injur'd by the same, together with the *Ligatures* ty'd round about, to fasten the Limb thereto, for its being thereby extended: And having compleated your Work, let the same be pin'd up in a Scarfe or Napkin, observing upon all these Occasions a due *Regimen*, by *Bleeding* and a *spare Diet*, to prevent a *Fever*, *Inflammation* and other Accidents supervening, where great Force has been used in reducing the *Luxation*.

At the second Opening, sooner or later as you find Occasion, you are also to take Care that the whole Joint, if not the whole Limb, be well embrocated *cum Ol. Rosar. & Lumbr. vel cum Ungt. Sambuc.* And that if the Skin has been, by the preceding rough Usage, any where excoriated, the same be dress'd up with Lenients, and after Digestion

tion cicatrised with my *Cerat. de Lapide Calam.* spread on Cloth like a Plaister, or other agreeable *Epulotic*, tho' I think nothing comes up to that, which may be apply'd from first to last: And altho' you omit this circular Turn of your Roller to bind down the Arm to his Side, at this second Dressing, yet he must have strict Charge given him for some Days, that he raise not the same up till the Bone is again well settled, and that the Fibres have in some measure regain'd their enfeebled Tone, or the Muscles compos'd thereof, their Strength:

Nor surely is the Patient at all Times to be dubious, that his Surgeon has not well perform'd his Work, or set his Limb in Order, because he cannot for some Weeks, or perhaps Months after, use the same as before: Since where *Instruments* have been used, and great Extension of the Muscles thereby occasion'd, it is not admirable, more particularly in diseased Habits, that long Time should be requir'd for the Recovery of the same, so violently distended, or put upon the *Tenter* as it were, if not some of them torn asunder.

The Examples of a *dislocated Humerus* are so very common, that I think it needless to insert them: Yet meeting once with one of them, that gave me, as well as my Assistants, more than ordinary Trouble, I will here recite it.

Hist. 105. An elderly Gentleman, keeping at that Time a *Thread-Shop*, by the *Pump*, opposite to the End of *Threedneedle-Street*, in *Bishopsgate-Street*, of a dry Habit, or a tough Muscular Body, sitting in his Chair asleep, after a large Evening's Draught, fell out of the same, and pitch'd with the Top of his Arm against the Stone-Pavement in his Kitchen, by which, without other Violence than the Weight of his Body, at this Time more than commonly helpless,



helpless, he threw the *Humerus* from its Socket into the *Axilla*: Which, notwithstanding it thus easily flew out, was not but with great Force and Difficulty replaced.

Being called singly, with the best Instruction I could give his Servants, how to behave in the Extension, and finding that the simple one by the Hand would not reach it, I try'd the Strap over my Shoulder, standing above him as he was placed and supported on a low Chair, in which Posture, stooping somewhat with my Hands upon the *Scapula*, to keep the same from rising, I had command enough for the Elevarion, had the Extension been but sufficient to have drawn out the Bone from the *Axilla*, to the Brims of the *Scapula*: But missing my Aim therein, I desisted, and call'd in Mr. *Bentham* my Neighbour, then living in *Devonshire-Street*, when jointly we try'd the Napkin with a Ball in the midst thereof, placed in the Hollow of the Arm, he lifting at the same, preferring it to the Girth or Strap, whilst I assisted at the Extension of the Arm with two others: A strong Man with his Arm round the Trunk, and his Hands as high as conveniently they could be plac'd to make the counter Extension, with another standing over to keep down the Shoulder-Blade: But neither thus, with the utmost of our Efforts, could we perceive the Head of the *Humerus* to move out: Wherefore being unwilling to loose this Opportunity, which we could not have again perhaps for several Days, or till the Fluxion brought on by our fruitless Extension was taken off: And by which Time the Success might be still more dubious, we sent to Mr. *William Babington*, who brought along with him his *Never-failing Ambi*, which he took principally to direct himself, whilst we were at the Arm, both above and below the *Cubit*, making the Extension,  
yet

yet still in Opposition to our utmost Endeavours, the Muscles were so tough and rigid, that they would not give way : Wherefore I now propos'd the laying him along on his Back, upon a Blanket extended on the Floor, whilst Mr. *Babington* lay revers'd on the same Side, taking fast hold above the Wrist with both his Hands, thrusting his Heel at the same Time high up into the Hollow of the Arm, my self with a strong Napkin roll'd up, and the Ball, as a above described, lodg'd therein, (on which his said Heel was fix'd) pull'd up the two Ends thereof, resting my Foot upon his Shoulder, and therewith keeping down the *Scapula*, made a *counter Extension* ; Mr. *Bentham* assisting at the Stretch below, by a Napkin turn'd over and twisted above the *Cubit*, having another Person employ'd in keeping down his Body, preventing its rising up or turning side-ways.

And thus giving the Word, the *Extension* was begun, as well above as below, when as we were exerting the utmost of our Power, and my self now beginning to despair of his Case, Mr. *Babington* perceiving the Bone moving after our second Essay, with his Heel suddenly and strongly turn'd outwards, threw up the same, and we could all plainly hear it cluck into its Place : Then lifting him from the Ground, we laid on our *Defensive*, and rolled him securely up, being forc'd to inspect his Arm daily, by reason of the Skin flea'd off all round about, (notwithstanding all the Precaution taken) by the several Methods of Extension practis'd for the Reduction.

And thus was this very tough Piece of Work, even at the Instant we were about to relinquish it unfinish'd, at length accomplish'd, and the old Gentleman, who being full of Wine, was less sensible of the Pain, altho' he roar'd out and beg'd  
us

us to forbear, recover'd (tho' it was long Time first) as compleat Use of his Arm as before the Accident.

To mitigate the Symptoms, he was presently let Blood, and for some Time, by the Direction of his Physician Dr. *Tyson*, kept to the Use of *Pectoral, Balsamic and Vulnerary Decoctions, Electuaries, Linctus's* and *Oily Draughts*, for the Relief of his Breast, which he complained was very sore a long while after: And indeed the Muscular Fibres, by being thus hall'd, were so enfeebled in their Tone, that they could not recover themselves, but by Degrees and gentle Motion, which occasion'd both the Patient and his Friends to be a great while jealous, that his Recovery being so very slow, we had put him to all this Torture, as they call'd it, to no Purpose, his Bone being still, as they surmised, out of Joint: But by the gradual Increase of his Strength, and gaining better Use thereof, he was at length convinced of his Errour in thus censuring of us; and as before he had handsomly gratify'd my two Assistants, so he now as generously and thankfully paid me for my Attendance.

A Case somewhat of Kin to the foregoing, about Hist. 106. the same Time, and in as tough a Subject, I was call'd to, befalling a Brewer's Servant; when after some ineffectual Attempts, by other Ways, I call'd in Mr. *William Petty*, and two or three other Assistants: And as the Patient was supported upon his Feet, we placed the *Crutch-Head* in the Hollow of the Arm-pit, and then fixing our *Pulley* and *Jack* upon the Floor commodiously for the Work, we brought down the Arm thereto, which being thus bound down to the same, we were able to make what Extension we pleased; the Head of the Crutch supplying the Counter-  
S
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Stretch



Stretch, and after the Tackle had been work'd up some Time, perceiving the *Humerus* dislodg'd, and coming out to the Edge of the *Scapula*, the said Crutch-Head was on each Side strongly raised upwards, and the dislocated Shoulder-Bone flew sensibly into its Place.

But in all these rough Ways of Reduction, the Muscles are a long Time in regaining their former Power of Motion: And great Caution, by a gradual Procedure, is here also requir'd, lest first of all, by the sudden depressing of the Arm, and forcibly lifting up the Crutch Head, before the Bone comes forward, you snap off the same, at least its Tip or Cartilage, together with that surrounding the Brims of the *Scapula*, receiving the said *Apophyfis* of the Shoulder-Bone. Secondly, by an Overstretch of the Fibres, especially in antient People, and morbid Habits, you excite Convulsion of the Nerves, and perhaps *Gangrene*, as I have known fall out, with Mortification, from the Pain and Fluxion.

HIST. 107. Soon after the latter Improvement of the *Skrew*, I was called in by Mr. *Joseph Tanner*, to a Baker in the same Neighbourhood with the old Threadman in *Bishopsgate-street*, who by a Fall had thrown out the *Humerus*. I was desir'd to bring the said Instrument along with me, and accordingly, having enter'd the Head of the same close in the *Axilla*, and, with the common Gartering Ligature, made fast the Arm thereto, I took the *Tur-niket*, and kept the Skrew in Play, till Mr. *Tanner* at the Head of the same, finding his Opportunity, order'd the Arm to be brought down, and at the same Instant raised up the Bone to its Place: After which loosening the Ligature, we dress'd up as usually in the like Cases, and the Patient soon after recover'd as good Use of the Limb as before.

I shall

I shall give you one Instance more of a Case of this Nature, and, as I remember, the second only I have been concern'd in, failing of Success at last, which I think too might fairly be imputed to the Petulancy and Obstinacy of the Patient herself, refusing us a second Trial, with more Assistants and different Instruments, for her Help and Recovery. The Case as follows:

A Gentlewoman, middle aged, of a somewhat full Habit, with plump, soft, and therefore one might have thought more pliable, Muscular Fibres, being thrown out of a *Chaise*, and pitching with her Arm against some solid Body in the Way, beat out the Shoulder, which Accident being not discover'd by the Surgeon, but mistaken for a *Fracture*, had accordingly been dress'd up: But she still complaining, I was consulted, when finding the Arm in good Figure, and being fearful of disordering the tender *Callus*, or giving Occasion to report that I had thereby disturb'd the *Fracture*, I declin'd lifting up, or otherways meddling with the Limb, and stood by whilst the *Bandage* and *Splints* were again put on. But about a Fortnight after, I was desir'd to give them a second Visit, and finding her still complaining of great Pain and Uneasiness, when the Dressings were taken off, I adventur'd, tho' very carefully, to raise up the Limb, and feeling all round, could not discover any Signs of *Callus*, or Appearance of a *Fracture*; so that taking the Arm more boldly into my Hand, to try the Motion, and looking on the Top of the Shoulder, though she was very fat, yet the Muscles not lying so round and full as they ought, I began to suspect that instead of the supposed *Fracture*, we had a *Dislocation*: Accordingly pressing hard with my Fingers through the *Deltoides*, I could plainly perceive the empty Cavity of the

*Scapula*, and as plainly feel the Head of the *Humerus* lodg'd in the *Axilla*. Upon which, taking the Surgeon aside, I gave my Judgment of the same, and advis'd forthwith that some Artist should be called in to his Assistance.

The next Day, when we had made as favourable a Representation of the Case, as it would allow, in regard of the Surgeon's Oversight about a *Fracture*; we met Mr. *James Fern*, Senior Surgeon of *St. Thomas's Hospital*, a Gentleman of strict Probity, good Learning, and sound Judgment; to whom lending what Assistance I could, we jointly made Extension upon the *Ambi*; but however promising a Subject we had to practise on, yet by the Length of Time the Bone was so fast lock'd in, and the Fibres contracted, that the *Instrument* with the too slender Extension we were now capable of making, much less the simple one by the Hand, first of all enterprised, would not reach it: So that desisting for that Time, we order'd an *Emollient Liniment*, to lubricate the Parts, in order to a farther Attempt, when the Fluxion was taken off, and some slight Excoriations healed: But it happened in the Interim, that by the Advice of some Friends, the famous *Southwark Bone-setter* was recommended to her, who taking up her Arm, gave it a sudden Jerk, and perswaded her he had set all to Rights: So that coming to see her two or three Days after, in order to perswade her to give Way to some farther Trial, she receiv'd me so very coldly that I suspected what had fallen out. She then told me that what three of us together could not do, tho' pulling almost her Arm off, was now done by one Man with little Trouble, meerly by a Slight of Hand, and she was very well again.

I had been too much acquainted with the vile Impositions of this Kind, practis'd by designing  
Men



Men and cozening Knaves upon the Ignorant, to give much Credit to the Relation: And indeed my Fingers itch'd, as we say, to be impress'd upon the Top or Neck of the *Scapula*, when letting her go on with some other great Atchievements she had been told of like Kind, perform'd by this Person, where the Surgeons had been foil'd, I desir'd only the Liberty of laying one Finger upon her naked Shoulder; which, by the Perswasion of a Gentlewoman then present, was granted, and I presently discover'd the Bone still wanting in its Socket, lying as before in the Hollow of the Arm-pit.

I then told her how she had been imposed on, and perswaded her all I could, if she intended not to remain always lame, that she would consult two or three able Surgeons, and see what farther might be done; assuring her, as I had no other Reason, of the great Probability there was yet of Success: But instead of hearkening to my Advice, she suffer'd her self to be yet again seduced by the Name of *Bone-setter*, believing it was properly the Business of that Set of *Impostors*, and not the Surgeons, and put her self now under the Hands of one *Pr—*, at the other End of the Town, who whether more honestly or judiciously I know not, but as ineffectually, after various Ways of Pulling and Hawling, left the Bone where he found it: Since which Time despairing of Help, she now rests content as it is.

### Dislocation of the Cubit.

Beneath the Shoulder, about the middle Way between the Ends of the Fingers and the uppermost Part thereof, is placed the *Cubitus* or Elbow, which is likewise subject to be *luxated* both for-

Dislocation of the Elbow.

wards and backwards, as well as upwards and downwards.

This Joint is made up of the lower *Apophysis* of the *Os Humeri* aforesaid, and the upper of the *Ulna*, by a Species of the *Ginglimus* in *Diarthrosis*, as the *Vertebra* in the *Synarthrosis*: The *Ulna* having two *Processes*, an antierour and posterour, the first being received into the forward *Sinus* of the *Humerus* upon the Flexion of the Joint, the latter entering the backward Cavity of the same upon Extension, which by *Anatomists* is called •*Olecranon*, by the common People the Point or Tip of the Elbow; a Part remarkable for the acute Pain ensuing a smart Blow thereon, owing chiefly to the tendinous Insertions of the *Extensores Ulnae* about the same.

It is in this backward Cavity that the *Cubit* or Elbow is stop'd from passing farther than the *Linea recta* or strait Line: At the same End it has likewise a double *Sinus*, the one at its Outside, receiving into its Head the Top of the *Radius*, its Companion, the other between the *Processes* before mention'd, receiving a Protuberance of the *Humerus*; this last is called *Trochlea*, the *Process* now observ'd moving therein as on a Pulley.

The *Radius*, which is placed on the Outside of the *Ulna*, comes in also for a Share, tho' but a small one, in this Articulation, its upper Part not only joining and supporting the *Ulna* side-ways, but having farthermore its Tip indented or excavated, for the outer Protuberance of the *Humerus* to play upon, when either bent or stretched out: The inferiour or lower *Appendices* of these Bones, we shall observe presently, when we come to speak of the *Dislocation* of the *Carpus*.

The Joint of the *Cubit* is farther strengthen'd by *Syneurosis*, or a Ligamentous Tye, being also bound

bound down by the Muscles, and their *Aponeuroses* or Tendinous Expansions, that one would think it very difficult to displace it, and indeed it is rare to find other than a *Subluxation*, or a *Semi-Dislocation*.

If it fall out forwards, you will find the Prominence or Knobby Rising in the Bend, as we call it commonly, of the Arm, or a Vacuity or empty Space behind above the *Olecranon*; the Hand falls strait down, reclining backwards, the Flexion being hinder'd so that the Patient is unable to bring the same towards his Shoulder-Bone, or to make therewith the common Angle with the Point of his Elbow.

The Manner of reducing this *Luxation* is, whilst your two Assistants, the one gripping about the Middle of the *Humerus*, the other between the Wrist and the said Joint of the *Cubitus*, gradually draw out the same, you are to place your two Thumbs on the prominent Part before, with your Fingers opposite behind about the back Part of the Juncture, when observing the Extension sufficient for your Purpose, you are, with your said Thumbs, to press back the Bone into its Place, giving Direction to the lower Extender to bring up the Wrist towards the Shoulder.

I have at some Times reduced this *Luxation* in young Children, by taking hold of the Wrist with my Right-Hand, a second Person drawing gently above the Elbow, and by the Thumb of my Left, forced back the Bone to its Place, whilst inflecting the *Cubit* I have heard the Cluck, and thus easily set all to rights.

But in rustic and tough Habits, where this simple Extension does not avail, we are directed to the *Girth* or *Strap*, like that for the Shoulder, but much longer; and having placed a thick Bolster of



Cloth upon the rising Head, putting the Arm through, let the one End be directed to the same, whilst your own Foot is placed upon the other: Then making Room as before by your Extension, you are to press hard upon the said *Girth*, and bringing up the Arm at the Wrist, you shall hear the Bone snap into its Place behind: But in your bearing upon the *Girth* as aforesaid, it behoves you carefully to observe, that the Force be made direct against the Interstice of the Joint, and in your Extension, keep the Arm rather towards a Curve than a Strait.

When the *Luxation* is backward, the unusual Cavity is felt on the fore Part, and the Bearing out behind: The Arm is shorten'd and brought so inwards, that the Patient can by no means stretch forth the same.

In remedying which, having made your Extension by your Assistants, and thereby drawn out the Limb with your own Hand, you are to force the over-bearing *Apophysis* back into its Socket.

For this End the Arm is sometimes put round a Pillar, the Bend of the *Cubit* being brought close thereto, whilst with a Strap fasten'd on the Protuberance behind, the same is strongly pull'd forwards, and the Bone thereby resettled.

But here you must observe, you put not the Arm upon a flex Posture, which would be a Means of farther widening your Separation, and obstruct your Work.

Again, if the Bone slips upwards, you will find the Rising or Inequality upon the same Part, whilst feeling beneath, you will miss the Bone, I mean its inferior Part, as when beat downwards the said Vacancy is perceptible at the Top, and the Protuberance underneath: At which Time, having made a suitable Extension, you force the *Pro-*

*cessus*

*cessus* back the Way it slipped, pressing on its Prominence, till you have either raised it when beat down, or depress'd it when starting upwards, and settled it in its former Place: After which, your *Defensive* with *Compress* and *Bolsters* dip'd in *Oxycrate*, &c. together with the *Bandage*, as for a *Fracture* on the Joint, are what only remain in order to the Cure.

I have sometimes known a *Fracture* of the *Processes* of those Bones, at least a Separation of the Cartilaginous Tips, mistaken for a *Dislocation*: And I believe more frequently falls out than observed at the Time of the Accident; being truly a bad Case, and discoverable by the crashing Noise under the Fingers upon the handling of the Joint, occasioning usually a Stiffness ever after of the same.

When this Consequence is fear'd, the best Way is to secure a Figure betwixt a Rect-Angle and a Right-Line, or to bring the Arm towards a Flexure: And after fastening of the *Callus*, you must use your utmost by lubricating Remedies externally, to regain what you can of the Motion; of which before in another Place.

### Dislocation of the Carpus.

The *Luxation* of the *Carpus* or Wrist succeeds of the next, which Articulation is formed by the lower *Process* of the *Ulna* terminating therein, with a small round Head impress'd for the Reception of one of its Bones, on the Side whereof, there is a kind of *Appendage*, named *Styloides*, which, by the Help of a *Syneurosis* or Ligamentous Fastening, is ty'd to the same, and the lower Extreme also of the *Radius*, which having receiv'd the *Ulna* in a *Sinus* for that End, descends still farther, and at its Extremity has two other Dents or Impressions for the Reception of

of some other Bones of the *Carpus*, which are eight in all, placed in two Ranks, called otherwise *Phalanges*; one of which however seems to lye a little out of Order, the uppermost being joined by an *Arthrodia* in the *Diarthrosis* to the *Ulna* and *Radius*, as aforesaid, the lower by an *Harmonia* to those above, and to the four *Metacarpal* Bones below, by *Synarthrosis*.

They are also farther connected among themselves, by proper Ligaments, as well as by the common, called *Annular*: Yet notwithstanding by great Violence or Force, especially falling with the Wrist as it were doubled, and sometimes on the Flat of the Hand, they are beat out of Place.

When the Wrist is *dislocated* inwardly, the Hand falls outwards; if outwardly, it inclines forwards: When Side-ways, which I think is rare, it is discoverable, as those of the other Joints, by the Over-bearing or Rising on the one Side, and the Vacancy of the other: Comparing always at these Times, for your farther Direction, the lame with the sound Parts, exposed for that Purpose just by.

If the *Luxation* be forwards, having made Extension at the *Metacarp* and Fingers below, with the counter Extension a little above the Joint, sufficient to let the Bones into their Places, let the Surgeon with the Flat of his Hand press the same down thereinto, whilst with the other behind, he stays the rest from giving way, or hindering the Reposition.

On the contrary, the *Luxation* being backward, the Force is to be made behind and the Stay before.

Some, at these Times in the former, place the Arm and Hand *supine* on a flat Table, and after Extension, with the Palm of their own press down the



## Sect. IX. Dislocation of *the* Carpus.

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the distorted Joint; as in the latter, laying the Hand *prone*, and truly, where these little Bones are started, this Method ought to take Place, with the Flat of the Hand bearing hard against them, till they are sunk even with their Fellows, or brought into their first Order, with which, as I have formerly taken Notice, it behoves you to be well acquainted, having also the sound Hand lying before you, not only as a Direction in the Work, but ascertaining you also, as well as the By-standers, when the same is rightly performed.

## Dislocation of *the* Metacarp and Fingers.

Below the *Carpus* stands the *Metacarp*, in as great Order, consisting of four Bones on a Level with each other, or in a strait Line with the *Fingers*, having in their upper Part, each an Impression to receive the lower *Phalanx* of the *Metacarpal* Bones, by a *Synarthrosis*, as at the other, a Prominence entering the small Pit in the first Bones of the *Fingers*, to which they are articulated by an *Arthrodia* in the *Diarthrosis*, as also by a *Syneurosis* or Ligamentous Binding.

The two Middle-most of these Bones cannot well start out side-ways, being supported by their Fellows so close on each Side; and when flying out whether upwards or downwards, there is nothing differing in the Method of Reduction from those above: So that we shall proceed to the *Fingers*, which are a Sort of *Ginglyonoid* Articulation in *Diarthrosis*, receiving, as we said but now, the *Metacarpal* Bones, and being received again of those below them, where the Heads and *Sinus's* however small, are double, unless in those which are next the Nails,

The

## Dislocation of the Metacarp. &amp;c. Sect. IX.

The Thumb differs somewhat in its Articulation, as not being joined above to any of the *Metacarpal* Bones, but immediately to the *Carpus*, and its lower having only a single Head entering the like *Sinus* of the Bone next to it.

These are also liable to *Luxations*, which are discover'd not only by their Inability of Motion, but the Extremities thereof over-bearing in some Places, and sinking on the opposite: Thus starting upwards, if you examine the *Internode*, you may both feel and see the Bunching out below the Back of the Hand, and the Hollow on the Inside opposite; if downwards, the Protuberance is discoverable on the Inside below the Palm, and the Cavity forsaken above: The like if side-ways, the one Part bearing, the other being sunk.

These *Dislocations* are all reduced by the simple Extension, taking hold of the *Fingers* End below, and the *Metacarpal* Bone above, after which the common *Defensive*, Bits of *Plaster-Compress*, *Roller* and small *Splints*, as we observed at the End of our last *Section* for the same Bones *fractur'd*, are all that may be farther wanting to the Cure: And to avoid the great Interruption of your Time, being too prolix as to what relates likewise to the Dressings for those of the *Carpal* and *Metacarpal Dislocations*, by looking back to the same Bones crush'd and broken, you may collect the like, if not the very same *Apparatus*, will serve your present Purpose.

## Dislocation of the Os Femoris.

We have now gone through the *Dislocations* of the Bones both of the *Trunk* and *Arms*, and are come next to describe those of the Lower Parts, *viz.* the *Thigh* and *Leg*: The former of which Bones

Dislocation of the Os Femoris.

Bones, lying so deeply buried among the Muscles, creates generally the greatest Difficulty to replace, I mean in its Articulation with the *Coxendix* or Hip-Bone, which hath a large Cup or Cavity fitted for the Reception of the *Femur*, whose *Epiphisis* or round Head jetting out beyond its Neck at its upper Extremity, enters therein as into a *Pixis* or Box; which Cup is called by the Surgeons *Acetabulum Coxendicis*, the Joint affording us the most remarkable Articulation under the *Diarthrosis*, being the first Species thereof, reckon'd up by the *Anatomists*, named *Enarthrosis*: The Cavity receiving being the largest and deepest, and the Head of the Bone entering, the biggest.

The Edges of this Cavity are also surrounded by a strong and thick Cartilage, which makes the *Sinus* yet more profound; and for the farther Security of this Articulation, besides the Ligament encompassing its Brims, there is another round, short and strong One, springing up from the middle Part of the Bottom of the *Pixis*, and fast inserted into that of the said *Appendix* or Head of the *Femur* entering thereinto, and constituting farther a *Syneurosis*, or with some a *Neuro-chondrosis*: So that without a Rupture, or tearing asunder of this Ligament, called *Teres*, from its curious, round and smooth Contexture, it seems almost impossible a compleat or perfect *Luxation* should happen to this Joint: And indeed, considering the Proneness thereof to slip out again, after Reduction, from the *Acetabulum*, we may rather incline to this Opinion: Altho' to deliver my own freely, to the Discredit of the Art, I believe the one Half are never replac'd, the Bone, after some Time resting among the Heads of the Muscles, there supports itself, tho' lamely, the unfortunate Patient limping his whole Life-Time after.

The



The *Os Femoris* is thrown out of its Socket both to the Out and Inside, as also forwards and backwards.

When flying inwards, which I have met with the most frequently, the Head is to be felt under the *Inguen*, the Leg appearing longer, with the Foot turn'd outward; the Patient being unable to bend his Knee, or join his Thighs together: Whereas if the *Luxation* be outward, the Leg will be shorten'd, the Foot inverted, with the Heel turn'd out, which set to the Ground, he bears rather upon the Toes.

When it slips forwards, the Head thereof lies on the *Pubes*, and if you press hard on the Muscles of the Buttock, down towards the *Articulation*, there will be felt an unusual Hollow, whence the same is fled; neither can he bend his Thigh, or bring the same towards his Belly, and, contrary to the other, if he tries to stand, he bears upon his Heel: A Suppression of Urine is said also at some Times to accompany this *Luxation*, from a Compression of the *Sphincter Vesicae*.

If thrown out behind, the Buttock will lye up higher, and appear fuller than the other, the Leg shorter: Whereas in the last, the Inequality is not great, but the Groin downwards feels very hollow, and the whole *Femur* hangs as it were backwards: But as to the Cure,

The Manner of Replacing this *Dislocation*, either inwards or outwards, is by laying the Patient *supine*, or with his Face upwards upon a Table, in which, for the better Extension or Stay of the Body, a Wooden-Pin about a Foot and half long, is fixed, which is to bear close up the Twist, or against the Groin on the lame Side: Then fastening a strong Towel or Napkin about the Knee, with another below, a third being before-hand  
put

put up to the Groin, round about the Hip, against which the Pin aforesaid is to rest, after which taking fast hold of the Ends of the said Towels, the Extension, as also the counter Extension, is begun, by several strong Arms, whilst one likewise at each Arm-pit, may farther the same, not only steadying of the Body, but augmenting the counter Stretch where it is wanting: During which, so soon as the Surgeon perceives the Bone moving out, let him take his Opportunity, giving Orders to the Extenders below, suddenly to lift up the Patient's Thigh towards his Belly, pressing with his Hands, either to the Right or Left, as the Situation of the same requires, and therewith force back its Head towards the *Acetabulum*, whereinto it will, slipping over the Tip of the Cartilage, snap sometimes with a loud Noise.

But supposing the *Processus* or Prominency lock'd under the *Glutei* or Muscles of the Buttock, the former Posture is to be revers'd, and the Body laid prone, in like Manner, or on the Face, the Pin rising up, on the Side of the Twist, whilst after suitable Extension as before, the Surgeon lifting up the *Femur* or Thigh-Bone, or rather giving Orders to the Extenders so to do, with his Hands presseth down the Head into its Seat aforesaid.

The like where it is forced to the Outside, the Extension, Elevation and Pressure, being made to the contrary, that the Bone may be more certainly and securely conducted to the Cavity it was flown from: In which nothing but a right and due Knowledge of the *Skeleton*, in its several *Articulations*, assisted also at the same Time by a diligent Comparison of the Limbs, the Sound with the Lame, can, as we have already more than once observed, render you compleat or dexterous in this Part of your Profession.

Where

Where the Extension by the Hand proves insufficient, the *Tackle* or *Pullies* are wanted, to supply the Deficiency thereof; notwithstanding which, tho' some very eminent Practitioners have been concern'd therein, I have more often known the *Dislocations* of this Kind, still left unfinish'd, than those of the *Humerus* or *Shoulder-Bone*.

HIST. 109. An *Ostler*, at the *Red-Lion*, in *Red-Cross-Street*, a young sprightly Fellow, being thrown from his Horse, in the Fall displaced this Bone, finding himself unable to stand upon his Leg, he was carry'd up to his Chamber, and put into Bed, after which they sent for me, who upon Examination plainly felt the Head of the Bone in the *Inguen*, and the Cup or Cavity of the *Coxendix* forsaken by the same.

In order to its Reduction, I call'd for the Assistance of three strong Fellows, at that Time in the House; and happening in his Neighbourhood, I sent also to Mr. *Richard Bateman*, then living just by, but he being from Home, his Servant came to me: I then ask'd for several strong Towels, one of which I drew up between his Legs close by the Groin, but clear of the *Testis*, each End of which was committed into the Hands of two of the Assistants before mention'd, in order to a counter Extension: To two others, placed one above, the other below the Joint of the Knee two more; and, as a farther Help to the counter Stretch, others were called in, who under each Arm were to draw up the Trunk, and keep the Body from wrigling out of the Way.

Being thus set at their several Posts, and all Things provided I had occasion for, as the Patient lay rather on the sound Side, kneeling on the Bed over him, I clap'd my Arms high up under the Flethy Part of his Thigh, ready for the Work,  
and



giving Orders for the Extension to be begun, both above and below, and as I found the Bone to move, with my Arms as aforesaid, I lifted it again to its *Acetabulum*, where it slapp'd in very loudly, and perceptibly to us all.

After this, I apply'd a large *Defensive* Plaster round the Hip, with Bolstering in the Hollow of the Twist, and roll'd him securely up: The rest being Nature's Work, only directing him to lie still and quiet, and confining him to his Bed for a Month's Time, which was not but with great Difficulty comply'd with; for finding himself so perfectly easy, eating, drinking and sleeping as well as before, having Youth and an excellent well constituted *Temperament*, he had no Notion of the Necessity of such Confinement, and unknown to me, had got up at the Fortnight's End, of an Evening, drinking and playing at Cards with his Companions. At about five Weeks End, coming into the Yard, I saw him in the Riding-Place, laying his Hand upon a Horse's-Back, leap upon the same, which he told me (and reasonably) was much easier to him, than mounting by the Stirrup, in which the Heel making an Angle with the Hip, the Head of the *Femur* is brought out nearer to the Brims of the Cartilage, and in greater Danger of slipping over the same, by stretching of the *Teres*: Nor did he, as I could hear, ever make Complaint of any Weakness of the Joint after.

This Case, with two others, in one of which the Head of the *Femur* was beat backwards, I do not blush to own, have been the only successful Enterprizes of this Nature, in which I have been my self, as Principal, concern'd, which were all too perform'd singly by the Strength of the Arm, or without any other Instrument.

I have indeed assisted others, who have some of them likewise succeeded, but for the most part miscarry'd in the Work; the Bone falling out again, through Relaxation if not a Rupture of the Ligament before described, and the Patient's Case after not to be retriev'd. I remember also where there were four Surgeons of us together, with other Assistants at the *Tackle*, when so soon as the Fibres began to be extended, the Muscles of the whole Limb were so universally convuls'd, that our Endeavours at the *Jack*, being render'd fruitless by the Spasmodick Contraction of the same, we were forced to desist, and leave the Bone nesting close to the *Pubes*, where we found it; proceeding now.

Dislocati-  
ons by Con-  
gestion of  
Humours.

As we instanc'd in the *Dislocations* of the *Humerus*, at sometimes arising from a gradual Congestion of Humours round about the Joint, and loosening the Ligaments thereof; so here also the like Misfortune happens, and that I think more frequently than above, particularly in *strumous* Habits, and more especially when some cold or phlegmatick Humour seated about the Hip, and stiffening its Motion, is taken for a *Luxation*, countenanc'd the rather by some Relaxation of the Ligament, by which that Leg appears perhaps a little longer than the other, which, together with the Preternatural Fulness round the Joint, confirms that Suspicion: And now some Roguish pretending *Bone-setter* going to Work, and hawling the Limb, under Pretence of Setting the Bone, a new Fluxion of Humour is stirr'd up, and an *Abscess* or Apostematation at length ensues, by which the Ligaments long sleeping in Matter, are farther relaxed, and the Head of the Bone really falls out of the Cup: At length the *Abscess* breaking, or being open'd, by the continual and large Discharge, an *Atrophy* comes on, and the Patient miserably pines away under a  
*Marasmus*,

*Marasmus*, as we have taken Notice elsewhere, in discoursing of the *white Swellings* upon the Joints, in our second *Section*, among the *strumous Symptoms*.

If such Accident is fear'd, and takes its Rise from a meer Debility of the Joint, as in weakly and *ricketty* Children, whose Ligaments and Muscles are over lax, and where there is no Humour congested round about, the *cold Immersion*, or Plunging the Patient frequently in cold Water, by giving a new Spring to the Fibres, invigorating the Tone of the Blood, and procuring a due Tensity to all the Parts in general, is, if I mistake not, the most serviceable Remedy upon these Occasions.

### Dislocation of the Knee.

The next Joint we come to, is that of the *Knee*, of the framed of the lower *Appendix* of the *Os Fe-moris*, which hath two small *Processes*, with a *Sinus* in the Middle to receive a Prominence in the *Tibia* below it, to which it is also fasten'd by a Ligament, and the upper Part of the said *Tibia*, which hath two superficial *Sinus's*, made by so many Cartilages fix'd on its *Appendix*; and excavated for the Reception of the *Processes* before-mention'd: So that here also we have a *Ginglymus*, *Syneurosis*, and *Arthrodia*, under the *Diarthrofis*.

Besides those, for the farther strengthening of this *Articulation*, just before the Extremities of these Bones, I mean the lower of the *Femur*, and upper of the *Tibia*, is placed the *Patella*, or Knee-Pan, which on its Inside is receiv'd by the smooth Cartilaginous Surface of the *Appendix* of the *Os Femoris*, and thereto joined by *Syntenosis*, being capp'd as it were, and fasten'd down by the Tendinous Expansion of the Muscles, we took Notice of in



the *Fractures* of this Bone, whose Use seems principally to secure the Joint of the Knee from being *luxated* forward, in our descending steep Places, or going down Stairs: Yet notwithstanding it sometimes happens, that both the *Patella*, as well as the Joint of the Knee it self, are liable to be displaced, tho' the latter seldom other than by a *Semi-luxation*, whether before, behind, or sideways.

If the *Luxation* be forwards, as the Patient lies along, let your Extension be made by the Hand, or a Napkin fasten'd above, with another below the Joint, whilst seeing your Opportunity, with both your Hands you sink down the prominent Part, and resettle the same in the *Sinus* it slip'd out of: And if this Extension by the Hand suffice not, the *Pully* is to be made use of; tho' I have never met with the Occasion at these Times.

When it is beat out backwards, you will find a Protuberance behind in the Ham, with a Falling in before on the *Knee*: In order to the Rectifying which, the Patient being set upon a Chair or Stool, well supported on each Side, the Extension made as before; whilst the lower Extender goes about to bend the Leg, with your Hands behind upon the Prominence, you are to force back the *Condyls* or started *Processus* into the *Sinus's* they had so lately abandon'd: Or placing both your Hands under the Ham, as you stand over him, forcibly lift up the same.

Another Way of reducing this *Luxation* is, whilst the Patient is supported on his sound Leg, with his Back towards yours, having taken the lame One between your own, you press one of your Hands on the prominent Part in the Ham, whilst with the other you raise the Leg up towards his Buttock: But I think you may as well have your Face towards his Back, and whilst an Assistant  
raiseth

## Sect. IX. Dislocation of the Knee.

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raiseth the Leg, in the Manner aforesaid, with both his Hands, you may have also yours at Liberty, as you find Occasion, to depress or drive back the Bone.

For the same Purpose, a *Girth* or *Strap* is also placed upon a Bolster in the Ham, when taking up the Leg in your Hand, whilst, with your Foot forwards upon the *Girth*, you draw up the same, you may more easily perform the Work.

In the Lateral *Dislocations* of the same Joint, if the Bones are forced inwards, the Prominence or unequal Rising will appear on the same Side, and the unusual Vacancy on the Outward; and so contrarily, if beat outwards, the Rising will be found there also, and the Vacuity inwards: When accordingly making suitable Extension, unless the Joint be very full and large indeed, and the Muscles through Pain under the Power of Contraction, you will sometimes find it no very difficult Matter, the *Processes* being small and the *Pits* superficial, with your Hands compressing on each Side, to direct the started Bone to its former proper Situation.

In these *Luxations* it is best, I think, to have the Patient out of Bed, at least sitting at the Feet thereof, well secur'd by one on each Side, in such Manner that he may be stay'd, during the Extension and Flexion of the Leg; and in the Lateral *Dislocation*, you may put his Leg betwixt your own, as you stand facing him, an Assistant behind you, taking fast hold of the same, makes the lower Extension; at which Time, whilst another pulls at the Thigh, with your Hands on each Side of the Joint, and the Inside of your own Knees close also to your Hands, by a Force thus united, you may more readily dispatch what you are going about.

## Dislocation of the Knee-Pan.

Of the  
Knee-Pan.

When the *Patella* is displac'd, you are also with your Hands to force the same back, whence it is fled, to its former Station, either gently or suddenly stretching out the Leg, as you perceive most likely to answer the Intension, when arriving near its Center, you will find a Flexion of the same, or lifting up the *Knee*, with your Hand under the Ham, will not only facilitate the Reduction, but prevent the slipping over of the Bone to the contrary Side, whilst its lying easily along is the best Posture to move it first out of the Place it is flown into, which is most commonly towards the upper Part: And here once again, as a farther Direction for the Resettling, you must have the well Leg uncover'd before you, that by carefully scrutinizing each, and duly comparing them in the same Postures, you may be the better assured your Business is well done.

I think I need not mention any Thing of the Dressings, which have so little differing from the *Fractures* of the same Parts, observed in our foregoing Section.

## Dislocation of the Ankle, &amp;c.

Of the An-  
kle, Tarsus,  
Metatars  
and Toes.

The *Ankle-Joint*, or *Tarsus*, is a Conjunction of the lower *Appendage* of the *Tibia*, whose *Process* on the Inside is named the *Maleolus Internus*, as that of the *Fibula*, its Companion on the Outside, *Maleolus Externus*, and the upper Part of the *Talus*, or *Astragalus* lying under it.

For the *Tibia*, at its Extreme below the Place, where it receives the *Fibula*, has a Cavity as it were divided by a little Rising in the Middle, receiving the



the prominent Part of the *Talus*, as aforesaid, by a *Gynglimus* in *Diarthrosis*, or that Articulation which is for manifest Motion: For it is on this Bone that the Foot is moved upwards and downwards, or bent and extended, and from whence, by outward Force, it slips off, as well as backwards, forwards, and side-ways.

If the *Luxation* happens inwards, the Sole of the Foot is turned outwards, as it is inwardly, where the *Luxation* is outwards.

If thrown backwards against the great Chord, or Tendon of the *Gastrocnemii*, the Foot appears much larger, and the Heel is lost: As the former is shorten'd, and the latter lengthen'd, when started or thrust forwards, upon the Bones of the *Tarsus*.

The Manner of *Reposition* of this *Dislocation* is, after due Extension at the Small of the Leg, and round about the Instep, the sound *Ankle* lying also to compare with, to press back the prominent Part by the Way it slipped out, and after by good *Compress* and *Bandage* to prevent its flying thence again; for there are some People so very feeble in these Joints particularly, that the Treading upon a rugged or uneven Stone in the Streets, shall immediately throw them half out, occasioning a *Subluxation*, and at the same Time the Bone snaps in again of it self, and they make a Shift, tho' very lamely, to hobble Home again.

I have been frequently sent for upon these Accidents, and discovering a vast puffy *Tumour*, or *Echymosis* upon the Part, have been sometimes jealous there has been a *Dislocation*, till coming to examine the several Motions, I found all safe, only embrocating the Part *cum Ol. Rosar. ac tantillo Acet. vel cum Ung. Sambuc.* and laying on a *Defensative ex Diapalm. Bolo, &c.* with moderate *Bandage* above

and below the Joint: If there has been great Pain, Bleeding also in the Arm, ordering moreover a spare Diet, with Confinement to the Bed or Couch for some Time, till the *Tumour* being dispersed, and the Fluxion gone off, I recommend a *Cerate* in the Room of the *Defensative*, to strengthen the Ligaments: And for some, who have been after subject to the like Accidents, upon every light Occasion, a *laced Sock* or *Stocking*, which has been found serviceable.

But if the *Luxation* be compleat, the Accidents ensuing are often of bad Consequence, not only from the Proneness of the Bones (whose *Processus* and *Sinus's* are so shallow, and the Weight they stand under so great) to fly out again, but by reason of their Ligaments and Tendons thereby distorted, great Pain and Fluxion is apt to arise, so that they want not only the same Rest, but as strict *Regimen* as those of the larger *Articulations*; and after your best Endeavours, it will sometimes happen, that inevitable Lameness, or a limping Gate will ensue for long time, if not always after.

HIST. 109. A *Brafter*, in my Neighbourhood, of a strong Habit of Body, and corpulent, in Leaping a Ditch that was very steep, pitch'd with one of his inner *Ankles* so doubling under him, and withal bruised against a rugged Stone in the Ground, that by the excessive Pain being unable to rise up again, he was therefore carry'd by his Friends to a House in the Town adjacent, in which he lay all Night, the Accident befalling him several Miles from Home, where he was brought next Day, and a Surgeon sent for, who discovering the *Maleolus Internus* thrown out of its Place, attempted, but to no Purpose, the Reduction: The *Tumour* being very great, and the Skin on the Outside, either by  
the

the Force of the Contusion, or improper Management in the Country, tending to mortify, which, when a second Surgeon was call'd in, they fomented, having first scarify'd, and dress'd up with *Theriaca* in the Form of a *Cataplasm*: Yet notwithstanding all their Endeavours, the same spread to the Compass of a Palm, and throwing off some few Days after, left the whole *Apophysis* of the *Tibia* naked, protruding out of the *Ulcer* to a great Distance: A Case indeed so formidable, or of so threatening a Nature, that the Surgeons thought it farther necessary to call in farther Help, and Mr. *Blundell* with my self were desired to visit him.

Upon strict Enquiry, and Inspection of the Joint, we found the lower *Appendage* of the *Tibia*, that locks in the *Talus*, broken off, and the Bone so thrown out of its Place, that there was no Likelihood of its Reduction, or ever after keeping it so reduc'd: The Ligaments being all torn, and lying round about in Sloughs, with the Bone also uncover'd, and standing out of the Brims of the frightfully gaping *Ulcer*.

After withdrawing into another Room to consult, when we had maturely weigh'd all Circumstances, we concluded the best Way was to dismember, before some *Abscess*, threatening from above, came on, and his Spirits were farther exhausted: And this we deliver'd to the Patient himself, in the mildest Way we could, as our joint Opinion, assuring him the Danger was as great by keeping of his Limb on, as by the *Amputation*, with a speedier Cure, if he surviv'd the Operation, as there was Reason to think he might, by the one Half; and consequently, all Things consider'd, infinitely less Trouble and Pain also, than he must expect in the laying open *Apostemations*, Use of *Escharotics* and *Cauteries*, to the *Fungous Ulcer*,



cer, as well as to the Bone, with the Fatigue hereof for long time, and the Hazard at last of his sinking by the great Discharge, before an *Ulcer* of that Kind could be brought to a firm *Cicatrix*: Or admitting that accomplish'd at the Year's End, the Unlikelihood of such a Limb to support him so well as the Artificial.

Having paused a little while, he seem'd to give way, and we left him a Day or two to consider thereof: When in our Absence, a certain *Empirical* Practitioner, for nothing so remarkable as a bold Assurance, was call'd in, who made a Pish at the Case, saying, in his Romantic Way, he had cur'd twenty worse Legs than this; and that there was no Occasion for cutting off the same.

Upon which the Surgeons who had been first consulted, perceiving, after several Months Attendance, that there was little or no Prospect of any End thereof, the Heel likewise mortifying, and the *Os Calcis* growing *Carious*, with *Apostemations* one ensuing another, which were laid open up to the Calf of the Leg; the poor Patient by a *Marasmus*, as we had foretold, reduced from great Bulk to a *Skeleton*, cover'd over with little more than the Skin: These Gentlemen, I say, withdrew, finding him still oppose the taking off the Leg, and made way for another, who promis'd greater Matters than the first ever pretended to: When thus struggling and languishing for a Year and half, I saw him got down Stairs upon two Crutches, and since many Years now past, in a poor lame Condition, as he must continue for his Life-Time.

### Dislocation of the Tarsus, Metatars and Toes.

Before the *Talus* stand the Bones of the *Tarsus*, the first of which, call'd *Naviculare*, has a *Sinus* receiving

## SECT. IX: Dislocation of the Tarsus, &c.

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receiving the prominent Head of the said Bone, which on its two Sides is encompassed by the *Processes* before mention'd, of the *Tibia* and *Fibula*, constituting the *Maleoli*.

'Tis by this Conjunction of the *Talus* with the *Naviculare*, which is an *Arthrodia* in *Diarthrosis*, that the Foot has its lateral Motion: But before we proceed farther, 'tis necessary we take Notice of another, called the *Calx* or Heel-Bone, the upper Part of which, lying under the *Talus*, is therewith articulated by a *Ginglimus*, both receiving and being again received.

To the posteriour or backward Extremity of this Bone, is fasten'd the great Tendon we mention'd before, made up of the Termination of the *Gastrocnemii*, or *Musculi Extensores Pedis*, called by some the *Tendo Achylis*, from the Story of the antient *Poets*, who feign *Achylles* to have been invulnerable in all other Parts of his Body: But his Mother holding him thereby, when she dip'd him in the River *Stryx*, this Part escap'd the sovereign Preservative, and he lost his Life after, by a Wound inflicted thereon: Quitting the Fable.

The fore Part of this Bone is joined to one of those of the *Tarsus*, called *Cymbiforme*: But now returning to the *Os Naviculare*, which, we told you, on its back Part received into its Cavity the Head of the *Talus*: On its fore Part there are three little Prominences, entering as many shallow Pits or Impressions of the three *Ossa Cuneiformia*, making an *Arthrodia* in the *Synarthrosis*; which, with the *Cymbiforme* before observ'd, lye in a Range connected by a strong *Syneurosis* or Ligament.

These Bones being seven in Number, viz. *Astragalus*, *Naviculare*, *Calcis*, *Cymbiforme*, and the three *Cuneiformia*, make up that Part of the Foot we call the Instep, which are liable to be displaced  
both

both upwards and downwards, those standing in the Middle, and those on the Outside laterally also: But there being nothing remarkably differing, either in the Reduction or Dressings, from those of the *Carpus* above related, no more than there is also between the *Metatars* and Toes, and the *Metacarp* with the Fingers, at the same Time remark'd, as to require a farther Enlargement thereupon; we shall content our selves in having thus laid down their *Osteology* or *Anatomical* Description, and close this *Section* with the following Caution.

Caution.

That if in attempting to reduce a Bone *dislocated*, having made great and painful Extension, you miss your Aim, and are disappointed; you are by no means to meddle again therewith next Day, or perhaps for two or three afterwards, but to wait till the Fluxion of Humour, owing to your former Extension, is taken off, Bleeding your Patient, and embrocating the Limb *cum Ol. Rosar. vel Sambuc.* after which, the Tumour subsiding, and the Excoriations, if any, healed up with your *Epulotic*, the *Ol. Lumbric cum Ung. Dialth.* or the lubricating *Axungia's*, in order to mollify and relax the Muscular Fibres, that they may more readily give way, when you enterprize the Work a second Time, being provided of more Help and better Instruments, at least the same more dexterously manag'd.

SECT.



S E C T. X.

Of some Distempers over-look'd in the foregoing, and incident more particularly to the Female Sex; as Tumours and Apostemations from Milk, soon after Delivery: With others arising from the untimely Stoppage of Child-Bed Purgations, Falling-down of the Womb, &c. also of the Prolapsus Ani.

WHEN I had taken a Review of the preceding *Sections*, I found I had omitted certain *Diseases* peculiar to the *Female Sex*, as in particular among the *Tumours*, those arising from *Milk* suddenly, and in great Abundance, after Delivery from Child-Birth, flowing into the Breasts, there at some Times exciting *Tumefaction*, *Inflammation* and *Abscess*.

Besides which, there are others also happening at this Time by some ill Management, as getting Cold or the like, whence the Child-Bed Purgations, called *Lochia*, being untimely stop'd, and the Blood thence imbued with a malign Quality, either *Stagnation* of the same with *Mortification* of the Parts ensues, or at the best *Apostemations* and *Sinuous Ulcers* hard of Cure.

Again,

Again, they are moreover subject to a *Prolapsus Uteri*, from the Relaxation of the Ligaments suspending the same, which frequently take their Rise from hard Labours, and other Weaknesses of *Fluors* both *white* and *red*, incident to the Sex.

*Galen*, I think, makes them an Hundred-fold more miserable than Man, on the Account of such, or greater Number of Maladies, arising some how or other from the *Womb*.

But leaving these to the *Physician*, we shall here only touch upon the above-mention'd, which will compleat our *Decade*, and shall begin with those occasion'd by the *Milk*, so far as affecting the *Glandules* of the Breast, and there raising a *Tumour* with Pain and Fluxion.

'Tis generally suppos'd, that after Delivery, the *Chilous* or Milky Juice, which I take for the same Thing, being no longer wanted for the Use of the *Fœtus* now excluded, is transmitted to the *Glandules* of the Breast, for nourishing thereof, as before it had been supplied by those of the *Placenta* adhering to the *Uterus*: But truly, how it subsists therein, whether on this or other Juices, or by what Passages the same are convey'd thereto, is a Disquisition foreign to our present Subject, and has employ'd the Ingenuity of several great Men.

However this may be, it is incontestable that the *Chylous* Liquor we call *Milk*, before it is *Sanguify'd* or turn'd into *Blood*, being separated from the same (as usually conjectur'd) in the Circulation by the *Glandules* of the Breasts, and thence by the *Tubuli Lactiferi* convey'd to the Nipple, whence lastly it is sucked into the Mouth, is by Nature ordain'd for its Food, till it is capable of more solid Nourishment.

Nor does it belong to us to solve that intricate Contrivance of hers, at this Juncture furnishing  
such

such Quantity of the *Chylous* Juice to these Parts, differently from what happens at other Times, any more than whether or no there be any secret Passages not yet discover'd, for the readier Conveyance of the same to the Breasts, than in the common Way of Circulation by the *Thoracic* and *Mammary* Arteries, where not being yet assimilated thereunto, it is, as but now observed, secreted by the *Glandules*, the rest returning by the Veins to the Heart.

These *Phænomena* are not I say our Task to discuss, who are now only to prevent what we can the Mischiefs arising from the too copious Afflux thereof, and to obviate its Stagnation in the said *Glandules*, with the Consequents thence arising.

'Tis certain almost every Woman, presently after her Delivery, finds great Increase of this Fluid we call *Milk* into her Breasts, by which the *Kernels* are first of all fill'd, and from thence the *Tubes* likewise distended, a farther Supply of which still coming on, great Tention must needs arise, with Pain and Induration; so that unless the same finds a Way of exonerating or emptying itself by the *Ducts* terminating at the *Mammilla* or Nipples, the whole Breast being thus put upon the utmost Stretch, is incapable of receiving more, and if the Plenitude be not abated, either by the drawing thereof, which is still hazardous, or absorbed by the Veins, as other Extravasations, and convey'd back again into the Blood, an *Abscess* or *Apostemation* frequently ensues.

Of



## Of Abscesses from Milk.

Of Abscesses from Milk.

This Disturbance happening generally on the third or fourth Day, raiseth what we call commonly the *Milky Fever*, causing great Disturbance in the Blood for some Hours, till a *Critical Sweat* breaking forth, the Turgescency goes off, and the *Fever* ceases: The *Glandules* likewise and the *Milk-Pipes* being now dilated, what follows afterwards placidly moves on, and, if no Mistake be committed, is for the most part kept under by the Infant's Suction, till the Time of *Ablactation*, or Weaning as our Women call it, when it usually slackens and disappears: Or the Mother again conceiving, provident Nature now standing in more need of the Supply, for the Nourishment of another *Fœtus*, withdraws the former to the Place where it is more wanted: Returning again from this Deviation to our Subject.

In order to prevent the Disturbance hence arising, so soon as, or indeed some Weeks before, the Woman is brought to Bed, she should determine whether or no she intends to suckle her Infant, and if she resolve not, she may wear Plaisters upon her Breasts moderately drying and restraining, such as the common *Diachylon*, or equal Parts of that and the *De Minio*: She is likewise before, but more especially after her Delivery, to avoid the Ingurgitating large Quantities of thin, ferous and attenuating Liquors, observing regular Discipline also in her Diet, which altho' sufficient for the Sustainance of her self and the Charge she carries, yet not to the Indulging any such Excesses as may accumulate superfluous Juices, apt to excite a Ferment in her Blood, and overload the Vessels.

Some

Some propose the Wearing likewise of a Wad of Tow, press'd out of warm *Oxycrate*, in the Arm-pits, with a View thereby of moderating the Course of the same into these Parts.

But after Delivery, what ever she did before, it behoves her to be wary, and to take Care she commits no Error, or be over busy with Applications too cold or repercussive, lest a *Coagulum* be thereby induced, and a *Schirrus* brought on, or at the best inevitable *Abscess* or *Apostemation*: Nor on the other hand must she suffer them inadvertently to be drawn, unless, thro' Plenitude of the Milky Liquor, the same voluntarily also flowing forth, she is put upon it for present Relief: For since her Design is not to give suck, she will hereby only make way for farther Influx thereof to these Parts, where she wants to get rid of it.

Let the *Surgeon* therefore be timely consulted, if there seem Occasion for his Help, who may in the Beginning apply afresh one of the foresaid Plaisters, giving a strict Charge that she be, as afore-mention'd, sparing in her Liquours, above all taking Care of the cold Air, or too early rising out of Bed, in which a free Perspiration by the Pores is to be promoted, that may keep under the Fulness of the Vessels, and carry off the Feverish Ferment rais'd thereby: Observing farther at the Peril of her Life, that she by no means check her Purgations, so absolutely necessary to her Preservation: And if, notwithstanding your *Repercutient* or *Discutient* Applications, the Swelling still increases and indurates, growing also painful, you are to add some gentle *Emollient*, such as the *De Minio* run down with a little *Ung. Dialth.* or the *Cera Flava cum Sperm. Ceti ac q. s. ejusdem Ung.* also the *Empl. de Mucilag.* or the *Diagalbanum* of *Bates.*

I have sometimes, in the Beginning of these Disorders, successfully apply'd folded Linnen-Cloths, wrung warm out of an *Aq. Calcis*, being shifted Night and Morning: But if the Pain increase with Inflammation, an *Anodyne Cataplasme* must be apply'd *ex Mica Panis in Lacte*, or a Decoction *ex Flor. Sambuc. Chamomel. & Fol. Rosar. in eodem Cocta & Farin. Fab. Inspis.* embrocating the Breast first of all *cum Ung. Sambuc.* or mixing some of the same with the *Cataplasme* before you lay it on: When the Symptoms still encreasing with Pulsation or Throbbing in the Part, especially if Matter seem perceptibly to fluctuate under the Fingers, and the Tumour grows prominent, you are to forward *Suppuration*, as we have in our First Section advised for the *Phlegmon*: This being indeed no other, and the Indications therein to be observed by the Surgeon, are here likewise the same which we have there laid down, that is to suit the Applications to the present Condition or State of the Tumour: For if you apply *Emollients* at the Beginning, by relaxing the Parts, you encourage and make way for the larger Fluxion; if *Discutients*, by rarifying or attenuating the Humour, you not only promote the same, but, by breathing forth the more subtil Parts, leave the rest to indurate in the Glands, and turn to a *Schirrus*: The like Mischief may accrue by the untimely, too late, or over long Continuance of repelling or *Restringent Topics*, which lock up the said Humours, and fixing them in their Channels, endanger Stagnation of the Juices, and bring on *Abscess* or *Apostemation*.

But we have said so much of this, as to the framing your Remedies to the Nature of the Swelling, and State of the Inflammation attending, when discoursing of that Tumour, as to render any Enlargement thereupon, I suppose, needless: So that



that referring you thither, if wanting farther Instructions, I shall only give you an Instance or two of this Kind, where I met with more than ordinary Difficulty to accomplish my Ends.

A young Gentlewoman, in few Days after her Delivery, or at the Time of her Milky Fever, getting Cold, as she apprehended, was seized with *Rigours* frequently returning, after which she began to complain of one of her Breasts; for which, by the Persuasion of her Midwife, she anointed the same with the *Ung. Populn.* and *Spir. Vini*, their usual Application at all Times: But the Fluxion still encreasing, with large *Tumefaction*, *Tention* and *Inflammation*, I was consulted, and found the Glands of the Breast very much obstructed by the Afflux of Milk coagulating therein, and threatening Apostemation in the upper Part, together with large *Induration* throughout the whole Body of the Breast, which upon handling was very painful: However, no Matter being as yet made, at least perceptible, I directed first of all the *Pultis* above-mention'd, *ex Flor. Chamomel. &c.* putting in the *Mica Panis* in Place of the *Farina*, to be laid over the whole Breast, having first well embrocated round about *cum Ung. Sambuc.* She was kept low as her Fever requir'd, and drank sparingly of Liquors, observing they always encreas'd her Pain, by running presently, as she express'd herself, into her Breast.

When finding, after a second Application, no Likelihood of discussing the Humour, I chang'd it for that *ex Ficubus & Lilliiis albis*, described for suppurating the *Phlegmon* that Way tending, and which soon after promoted the Maturation already begun in the upper Part, where the *Tumour* now seemed to rise up in a Cone, and the Matter after appearing sensibly to fluctuate, I laid a Bit of *Cau-*

*stic* through a Perforation made in a Plaister for that Purpose, and in the Evening let out the same, which was of itself ready to burst through, before the Application.

Yet notwithstanding this Appearance of a thorough *Suppuration*; after the Discharge, I found the *Apostemation* was but superficial, the other Parts of the Breast continuing still hard and painful, with its *Glands*, particularly the larger under the *Mammilla*, much more so.

Upon Separation of this *Eschar*, I found a *Sinus* that was however but *cutaneous*, running higher up towards the *Clavicle*, this I laid open, here being no Prospect of Union by *Compress*, of which the Part was incapable; and whilst I was deterging the Wound above with the *Precipit.* and *Linim Arc.* as it was near upon healing up, I perceived *Matter* making way through the *Flesh*, seeming to arise from that large and deep *Gland* below in the Body of the Breast.

Dilating the Orifice with a Bit of *Gentian-Root*, and the Day following, passing down my Instrument, I found it running deep under the said Glandulous Body, and by pressing the Breast gently upwards from below, the *Matter* began to rise daily in great Quantity after Extraction of the Root intruded, and which now choaked in the same till let forth at the Times of Dressing: So that observing no Likelihood of bringing about her Cure this Way, and finding it impracticable to lay open the *Sinus*, I directed a Silver *Canula* to be made, with suitable Pipe and flattish Rim, which I enter'd readily, the Matter, as it rose up freely emptying itself thereby, to the Patient's Satisfaction: Nor did I expect more from this Way of Dressing, unless greater Ease to my Patient than the other, the Situation of the Orifice being above,  
and

and so not favouring the Discharge of the *Matter*, otherwise than as it rose up and overflow'd: The Cavity also lying very deep, and her utmost Desire being only to be freed from Pain; the very mentioning of Dilating giving Occasion to withdraw herself from me: When having try'd another Gentleman of the same Profession for some Weeks, and again discharg'd him; she sent for me a second Time: Her Pain being much encreas'd by throwing out the Pipe, and giving her, I suppose, a fresh Alarm.

I was not at all concern'd that the *Camula* had been left out, which was intended only, to palliate for some Time, till I could convince her of the Necessity of taking other Measures; endeavouring to choak in the *Matter*, and try to put the Breast upon Apostemating in some other more depending Part, commodious for emptying thereof.

To this End, I thrust in a Tent of Lint, rolled pretty tight, and thereby filled up the Orifice, with an adhesive Plaister on the Outside, also a large One of the *Mucilages* encompassing the whole Breast, on account of the great Induration all round, and intending not to move these Dressings for two or three Days; but before such Time was expir'd, the *Matter* being much increased, as was to be expected, with Inflammation, my Patient grew impatient, and the second Night finding she could have no Rest, her Nurse and she together, taking off the sticking Plaister, the upper Part of the Tent adhering thereto was also at the same Time extracted, and great Quantity of *Pus* pouring presently out, upon which growing easy, she pass'd the rest of the Night in Quiet.

When I came the next Morning, and was inform'd what had been done, I told her plainly, If she would not give way to what I had thereby pro-



pos'd, it would be to no Purpose for me to give farther Attendance: Endeavouring once more to convince her, that till we had an Orifice that might favour the emptying of her Breast, she might be in the same Plight, if not much worse, through a Hætic State, half a Year after, as she then was, and as far from her Cure. When finding her not so pliable as I expected to my Proposal, I had now Thoughts of leaving her, as before she had withdrawn from me. However, taking a View of the Breast at this Time, I perceiv'd the *Matter* still running out, and entering my *Probe*, which without any Pain given her thereby, had an easy Admittance through the Body of that large Gland, with my Fingers of my other Hand at the Bottom on the Outside of the Breast, tho' at some Distance, I could feel the Extremity thereof; so that drawing forth my Instrument, after much Perswasion, I prevail'd once more to choak up the old Orifice at the Top, promising to be with her the next Day, if she could not longer dispense with the Disturbance, or till the *Matter* was sunk lower, and should shew it self in a fitter Place for the Discharge as aforementioned.

Visiting her accordingly, tho' towards the Evening of the next Day, she complain'd exceedingly of her Pain, the Breast appearing full and again inflam'd as before; yet giving her farther Encouragement of her being quickly well, and the great Likelihood there was of obtaining our Desire, could she hold out but a few Hours longer, I left her without moving the Dressings, with a farther Assurance that I would return to her early the next Morning: But her Courage, it seems, failing, or her Pain surmounting, knowing it was in her Power to ease her self, if I refus'd, she call'd me up early the next Morning, ordering the Messenger

senger to acquaint me, that if I would not come away presently and let out the Matter, she would pull out the Tent her self, let the Consequence be as it would.

In this Interim, I had given Orders for a large Steel Instrument, a little bent, flattish and pointed at one End, having an Eye at the other, like the *Seton Needles*, into which I had drawn about half a Dozen Needles-full of stitching Silk, defending the Point with a Bit of Plaister.

Taking this along with me, in about an Hours Time I went to see her, and found her with a large Bason at her Breast, letting out the *Matter*; under the Discharge of which, together with the Pain she had undergone, she seemed ready to faint.

Hereupon, unwilling to lose the Opportunity, with my *Probe*, as usually, in my Hand, as if going to pass the same, whilst my Patient was thus leaning upon her Nurse's Arm with her Head, in a Sort of *Deliquium* or *Lypothymy*, I changed my *Probe* unheeded to them both, and, concealing the Silk in my Hand, passed down the Steel one, and forced the same through with very little Complaint, having kept them ignorant of what I had done, till I had drawn my said *Flammula* through also.

Nevertheless, so intricate was the *Sinus*, and the *Matter* so bedded as it were in the Body of the *Gland*, that it was several Days before it found its Way out by this Orifice at the Bottom. However, leaving out the Tent above, and anointing the *Flammula* with my *Digestive* for its freer Passage up and down, she continued easy, and soon after ceasing to run out at Top, it came at length to discharge it self the Way intended, which I now somewhat dilated, for its readier Vent, by a

fine or thin Piece of the *Gentian* Root, thrust up between the Silk, whence in few Days, being still farther enlarged, there was made so compleat a Drain, that soon after cutting out the Silk, I permitted the upper Orifice to heal up, putting a *Can-nula* of sufficient Length into this lower, which was continued some Time longer for Prevention, or till the *Matter* ceased here also to flow out, the Breast being now cover'd with the *Emplastr. ex Am-moniaco*, by which the Induration gradually resolved; so that laying aside the *Can-nula*, and putting up a soft easy Tent, dipp'd in the warm *Liniment*, and daily lessening the same, this lower Wound also was healed, and her Cure compleated.

HIST. III. A Case of the like Nature, after more than Twelve Months successless Endeavours, of several *Doctresses*, famous for the Cure of *sore Breasts*, as also of some others, was soon after recommended to me; upon the Examination whereof, finding several Orifices, each with a large Plug or a Rag dipp'd into some *Balsam* and thrust in, upon the drawing out of which there issued forth great Quantity of a dreggy and stinking *Matter*, gathering a-fresh between the Times of Dressing, being thereby shut in.

After farther Enquiry, I discover'd the Spring-Head of all these little Rivulets, arose principally from the Glandulous Body in the midst or under the *Mammilla*, first deeply Apostemating and raising several small *Abscesses* round about, but still superior or lying above the Source of the Mischief, and insufficient for disburthening the same, otherwise than as the *Matter* superabounded.

Which being the State of the Case, I began her Cure by passing a small but long Piece of *Gentian*, suitably proportion'd, from the most likely Orifice, down into the Glandulous Body, throwing  
out



out all the other Tents, and dressing only with an external Pledgit of the common *Digestive*, suffering them to heal or continue open, as the natural Bent of the Humour should dispose, by which being render'd easy in these Parts, she was better able to endure the Stretch of the Root in one of them.

This Method was continued till I had made Way for a Piece of Root near three Inches in Length, and of the Thickness of my little Finger; when having thinned the *Sinus*, I more strictly examined and found, especially towards the Extent, that I must cut more than an Inch thick, with three in Length, before I could come at the Bottom, or lay a good Foundation for Healing.

After this, concealing my real Design from the Patient, tho' I had apprised some of her Relations, by Appointment I met that worthy Man, my good Friend Mr. *Blundel*, and after a short Consultation by our selves, he readily agreed to the Cutting into the Cavity, and pitch'd upon a Pair of large strong-shank'd *Probe-Scissars* I had provided for the Work, where having an *Apparatus* ready, though out of Sight, for the same, we came to the Gentlewoman, and gave her Encouragement for a speedy Cure, by her admitting us to open a small Part of that Hollowness, she having been exceedingly harrafs'd by other Methods, and for so long Time also, was more easily prevail'd on to submit her self; and leaning her Head on the Bosom of one of her Friends, I advanced the Button-Shank of the Scissars towards the farthest Part of the said Cavity, and with one Stroke or Gripe laid open the same; whereupon a divided Artery spurted out, but which after permitting to bleed a little while, was quickly restrain'd, by thrusting down a hard Button dipp'd in the Powder of crude Alum, on the Place

Place whence it sprung; filling the rest of the Cavity with dry Dossils, also Bolsters both of Tow and Linnen Cloth dipp'd in *Oxycrate*, and sprinkled over with *Farina Volatil*, on the Outside, rolling up much after the Manner directed for the fractur'd *Clavicle*, ordering the Nurse to keep her Hand down close upon the Dressings for some Hours, or till they were grown dry.

That Night she was dispos'd for Rest, with a gentle *Anodyne Draught ex Aq. Papav. 3j. Sal Nitri 3j. Syr. de Meconio 3vj.*

The other Orifices, which were five in Number, were dress'd up as before with a *Digestive*, not doubting their Healing now the great Fund of *Matter* was emptied, and the Supply therefrom cut off.

Two Days after, in regard to the Flux of Blood deferr'd so long, we met again, and carefully took off the Dressings, intending to leave the Button upon the Artery, if it came not away of it self: But, to our Consternation, together therewith started up an extraneous Body, which, upon Enquiry, we found to be a Rag roll'd up Tent-Fashion; which, as we could gather, had lain there several Months, grown black and stinking, being by one of her former Operators doubtless thrust in, and sinking lower, escaped after as well Remembrance as Sight; which sufficiently justified our Proceeding, and without which it had been very unlikely, at least for some Time, it could have been taken forth.

This discover'd and remov'd, we fill'd up the Wound with soft Dossils, dipp'd in the warm *Liment* of *Arcaus*, which being digested therewith, and a little *Precipit. rub.* sprinkled on the *Sloughs*, and strewed round about to correct the Flesh, was soon after deterged, so that gradually lessening

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ing the said Dossils, the Wound was incarned, and, by the dry Lint only, cicatrised in about five Weeks Time from the laying open the Cavity; the Sores above all healing up quickly after; but an Induration remaining longer, gradually resolved under the *Diagalbanum* of *Bates*.

Towards the Close of the Work, and to hasten off the Remains of this Induration, she was purged between whiles with *gr. xij.* of *Calomel.* in a Bolus over Night, with *Cons. Ros.* and the *Decoct. Senæ cum Manna vel Syr. Ros. Solut.* the next Morning: And being tired out before by the Continuance of her Pain, a *Hætic* Pulse, with *Colligative* Sweats threatening a *Marasmus*, was order'd also to take Asses Milk, with the *Testaceous Powders*, which recruiting her Flesh, she soon after recovered, and regain'd her former State of Health.

## Of other Disorders befalling Women in Child-bed, or upon their Delivery.

The next of the Maladies to be taken Notice of, and which we forgot to mention among the Tumours in our first Section, are those arising from a Suppression of the *Lochia*, or natural Purgations, vulgarly by the *Midwives* called *Cleanings*, attending Women the first Days after their Labour, being truly *excrementitious*, and which ought therefore to be cast forth, lest otherwise retain'd contrary to Nature's Appointment, contaminating the Mass of Blood, a Fever is raised, and that of the worst Kind, by which Life is often endanger'd, unless she steps in between, and congregating as it were the Poison into some particular Part of the Body, throws the same critically forth in the Form of an *Abscess*.

Whether



Whether or no these Humours, thus flowing from the Womb at these Times, have any thing in them of a *venene* or poisonous Nature, may perhaps be question'd by some, tho' seeming more than probable to others: Nor is it any thing absurd to believe, that during the Time of their Collection about the *Uterus*, whose Substance is thereby so thicken'd and enlarg'd, as if stuff'd with a *Parenchyma*, being here as it were *stagnis'd*, and out of the Laws of Circulation, growing *putrid*, should put on a *deleterious* Quality, requiring therefore, according to Nature's Appointment, after Delivery, to be spewed out of the *Glands*, whereby the Womb again subsiding, returns soon after to its pristine Magnitude.

I am the rather inclining to this Belief myself, not so much from the ill Colour and Scent of the said *Lochia*, but the ill Effects from their Suppression, suitable to some of those from other Poisons mixed with the Juices of the Blood, and impressing the same with the like *gangrenous* Disposition, together with the most formidable Symptoms excited in that subtil *Fluid* of the *Nerves*, disturbing their whole *System*, such as *Rigours*, *Tremours*, *Spasms* or *Subsultus*, *interrupted Respiration*, *undulating*, *intermitting Pulse*, *Coma's*, *cold Sweats* and *Death*; or, seizing some particular Parts, inducing *Necrosis* thereon, or *Mortification*, after the Manner produced by some *Epidemical*, *malign Small-Pox*, unless, as above remark'd, *Nature* be strong enough to overcome and vanquish the deadly *Toxic*; or, separating from the rest of the *Mass*, to throw forth the *morbid Matter*, by raising an *Apoſtem* in some of the Parts; altho' here too, sometimes, we have but a poor Chance for an Escape, the same being too much for the Art of *Surgery*, and situate out of Reach, whence an incurable *Fistula* arising,  
the

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the Patient, tho' it may be not so suddenly, yet dies more miserably under a *Marasmus*. A Case or two of which Nature, however seeming desperate, where the Success surmounted my own Expectation, I will here insert, so soon as I have given you the following Instructions.

That however in the *Tumours* or *Abscesses* from *Milk*, where the Fever was of that *Species* Physicians call *Συρεχης*, *five benigna*, and *Symptomatical*, there may be little need of *Physical* Administration, especially the Time of *cleansing* being over; yet in all those arising from the *lochial* Suppression, when the same turns presently to a *Σύροχος*, *seu vere maligna*, the *Physician* is timely to be consulted, that by proper Methods, they may be again promoted; whilst the *Vital* Indication is also provided for, by such *Cordial* and *Alexipharmic* Remedies, as may subdue the *Malignity*, and fortify the Spirits, preserve the Tone of the Blood, and prevent the *Grumescency* thereof on the one Hand, or running out into Fluxes on the other; whilst the *Surgeon* uses his utmost Endeavours to stop the Progress of a *Gangrene*, if any such attends, or hastens *Maturation* of the *Tumour* appearing, if the same will not admit of *Resolution*, as we have given Directions for the *Phlegmon* terminating in a *Mortification*, or otherwise tending to a *Suppuration*.

A middle-aged Woman, of a thin Habit, inclining to a *Hectic*, by too early rising (the Bane of Thousands at these Times) and getting Cold, had her *Lochia* stopt suddenly upon her, by which a *malignant* Fever, with frequent Return of *Rigours*, came on, and after two or three Days she began to complain of a great Pain in the Bottom of her Belly towards the Groin, stretching obliquely upwards on the same Side. The fourth Day a Streak of Red appeared on the Place, which in the Evening

ing settled more downwards, and fix'd it self on the *Glandules* of the *Inguen*, rising up as a *malign Bubo*, hard and painful.

When they had try'd for a few Days her Midwife's Applications, the *Tumour* still farther encreasing, and threatening an *Abscess*, I was admitted to take a View, just as they were about to apply some roasted *Onions*, to which, having examin'd the Part, I readily gave way: But deliver'd my Opinion in very doubtful Terms, in that of a *Prognostic*, viz. That as there now appear'd to be an Effort of *Nature*, to throw off some Impurities separated from the Blood, and likely to turn to *Matter* by the great Pain attending, it was by all Means necessary the same should be invited outwards and discharged; but considering its Rise from the *Child-Bed* Purgation stop'd, polluting the Mass with a *malign Ferment*, it was a dangerous Case: And by the great Hardness extending it self high upon the Belly, very likely to penetrate the Cavity thereof, and turn to a *Fistula*, as difficultly, if at all to be cured.

Coming to her next Day, I found her very restless, melting away in Sweats, with a low, quick and unequal Pulse, yet high Colour in her Face, crying out of great Pain, not only on one Side, but the whole Region of the *Womb* and *Bladder*, from which she had discharged a small Quantity of Urine, tho' at several Times, which appearing highly inflammatory, I was still fearful those Parts were affected, and that the Original of this threatening Mischief lay on the Inside of the *Peritoneum*.

Upon taking off the *Onions*, I thought I felt *Matter* underneath, tho' very deep, and having provided a *Cataplasm ex Rad. Lill. Ficubus Ping.* as directed for *Maturation* of the *Phlegmon*, the same was now laid on, in Hopes that in a Day or two  
at



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at farthest, if we could keep her so long alive, we should find the *Tumour* fit for opening; to hasten which, tho' she had no Stool for three Days past, yet I declin'd giving even a common Glyster at this time, for fear of checking the *Absoess*, too far advanced, and unsafe to be diverted other Ways: So that contenting my self with directing an *Alexipharmic Bolus ex Pulv. Lap. Contrayer. & Theriac. Andr.*  $\bar{a}$   $\mathfrak{z}$ j. cum Syr. de Croco  $q. s.$  also a Pearl Julap for the Support of her Spirits, I left her for the present: But late the same Evening was sent for in great Hast, her Friends thinking she was dying.

But understanding she had at all Times a weak System of those Parts, and was subject to *Hysteric* Symptoms, I was in Hopes this might be no other than a *Paroxysm* of that Kind; upon which Account I strait directed for her as follows.

First of all, for quickening and promoting an Expansion of her Spirits, or Raising her drooping Pulse, as also to secure her from *Convulsions*, a large Vesicatory was laid on betwixt her Shoulders: And to assist Nature in throwing the malign and morbid Matter still farther outward, a *Bolus* and *Julap* as follows.

*R $\mathfrak{x}$  Rad. Contrayer.  $\mathfrak{z}$ ss. Pulv. e Chel. Canc. C.  $\mathfrak{z}$ j. Croci Castor.  $\bar{a}$  gr. v. Conf. Alkerm.  $q. s. m. s.$  Bolus sumendus quam primum, & repetendus deinde vja. quaque hora superbidendo Coch. quatuor aut quinque Julap: sequentis cujus totidem bibat per se in intervallis vel in languoribus.*

*R $\mathfrak{x}$  Aq. Lact. Alex. Ceras. Nigr.  $\bar{a}$   $\mathfrak{z}$ ij. Theriacal stillat.  $\mathfrak{z}$ ij. Bryon. c.  $\mathfrak{z}$ j. Tinct. Croci Aq. Theriac*

extr. ℥ss. Conf. Alkerm. f. o. 3j. Syr. e Cort. citri 3j. m.

Rx Spir. C. C. per se ℥ss. sumat gut. xx. in quolibet potulento subinde.

Rx Spir. Sal. Armon. cum calce destillat. in phiala orificio amplo sed bene obturato ℥ss. cui, amoto illo, olfaciat, vel naribus admoveatur sub deliquio.

The Cataplasn, lying in good Order, was continued till next Morning; when, returning early, I found her somewhat reliev'd of those *Nervous Symptoms*, having much more Warmth, a stronger, yet still a little *intermitting Pulse*, less Tremour and Fainting.

Removing the *Pultis*, I found the *Mattter* so far advanced, that I apply'd at the same Time a large Piece of the *Lap. Infern.* on the rising Part of the *Tumour* which was in the Groin, and about Noon return'd, when her Blister was cut, but in Consideration of her fainting under the Smart and Discharge thereof, I defer'd Opening till towards Evening; when I cut through the *Eschar*, and suffer'd, but without pressing, what would, of a greenish, offensive or stinking *Pus*, to run out, which discharged near a Pint in Quantity: After which she grew very easy, the *Eschar* being dress'd up with a Pledgit of *Basilicon*, I apply'd all round, at this Dressing, some more of the same *Cataplasn*, to soften the *Induration* of the Muscles, and farther the *Suppuration*.

The Day following, the *Tumour* was quite sunk by the vast Discharge, the Nurse acquainting me she had been forced to shift the Clouts that were put to her under the Napkin, pin'd lightly round for the Support of the Dressings as well as them, several

several times in the Night, being foul or wet with the *Matter*, and that which I now order'd her to take away, (which had not lain on above two Hours) I perceived in like Condition, sending forth so strong a Stench as made the Room offensive to come into.

Thinking it needless to make any Probation at this Time, of which she was exceeding fearful, I contented my self with dressing up the *Eschar* as before, adding only a little *Spir. Tereb.* to the hot *Basilicon* in which the Pledgit was dip'd, for correcting in some Measure the Putrifaction, and leaving off the *Pultis*, I had order'd an *Elixiriata Fotus* of the *Discutient Plants*, such as the *Summit. Centaur. Hyper. Flor. Chamomel. Melilot. Sambuc. Fol. Latur. Bac. Juniper.* these being boiled with a Handful of Wood-Ashes in Spring-Water, were after strained, to a Quart of which boiling hot, being added, as customarily, three or four Spoonfuls of *Campborated Spirit*, and applied with hot Flannels strongly express'd all over the Belly: The *Tumour*, as I observed, being now sunk about the *Eschar*, and the *Abdominal Muscles*, which two or three Days before felt thick and hard, appearing again lank and flaccid as the Groin it self, tho' as yet too painful to bear either *Compression* or any Sort of *Bandage*.

For alleviating this Tenderness of the *Abdomen*, I prescribed this following *Liniment*.

Rx *Ol. Lumbric. & Ung. Dialth. ā 3j. Sperm. Ceti 3jss. Ol. Anis. Chym. 3j. m. f. a. & f. Litus: quocum (coram igne liquefacta) manu calida foveatur Regio Abdominis, precipue ejus pars sinistra, post usum forus pannum laneum, eodem imbutum, superponendo.*

I farther order'd a Clyster at this Time, by reason of her not having had a Stool for several Days past.



*R<sup>2</sup> Decoct. Com. pro Clyst. ℥xij. Mel. Mercurial. Syr. Viol. ā ℥j. Sal. Gem. 3j. m. f. Enema injiciendum quamprimum parari postest.*

I was at this Time again press'd by her Friends to deliver my Judgment of her Case, which I told them was still very doubtful; for altho' I had not examin'd the *Simus*, yet by the Discharge which continued in large Quantity, it was plain the same ran very deep among the Muscles of the lower Belly, if not into its Cavity, of which I intended as well to satisfy my self as them, in a Day or two more, being willing to give her Respite from any farther Disturbance, either of Mind or Body, till the *Eschar* was entirely separated, and her Strength a little better recruited; for which End she continued her *Cordial Bolus* Night and Morning, with the *Julap* as before: Her Diet was *Chicken-Broth*, *Barley* and *Water-Gruels*, with a little *Wine*; likewise a thin *Jelly* of *Hartsborn Sharvings*, also another *Julap* loaded with the *testaceous* or *absorbent* Powders *ex Margar. Coral. rub. Chel. Canc. simpl.* in order to strengthen the enfeebled Tone of her Blood, which was still prone to run out into Sweats: *Almond Milks* and *Emulsions* to contemperate the Heat of the same, and prevent the *Hætic* she seem'd to be threaten'd withal.

In two or three Days more, the *Eschar* throwing off, I earnestly press'd them for a *Consultation*, but her Midwife having been very lavish in setting forth my Abilities, and giving some Instances of my Success, in Cases of the like kind, at least so represented by her, altho' wide in Fact, particularly a very remarkable one upon herself, which shall be recited presently, they would hear of no other Assistance, more especially the Malady being

so situate as it was. Wherefore having only prevail'd for the introducing of my *Probe*, I found a very easy Admittance for the same, which was presently buried in its whole Length, running obliquely from the *Inguen* towards the *Os Ileum*, under the *oblique* and *transverse Muscles* of the *Abdomen*, by which I found one Part of my *Prognostic* likely to be verified, and drawing out the Instrument, I enter'd a *searching Candle* of greater Length, to find the Extent of the *Sinuosity*, which was little more than what I had before reached. I then attempted, by bearing downwards, to find, as I withdrew the *Candle*, but could not discover, a Penetration into the *Pelvis*, or through the Coats of the *Peritonæum*.

Having thus satisfy'd my Enquiry, I dress'd up the *Ulcer* with a large Dossil strung, of suitable Proportion to the Cavity, first arm'd with *Linim. Arcaei*, in the Place of *Basilicon*, now left off upon the Fall of the *Eschar*; and dipping it in a Pan-niken of the same melted down with about a sixth Part of *Tinct. Myrrh. & Aloes*, in order to correct the Putrid Condition thereof, strewing the Bottom, for the same End, with the *Precip. rub.* the Mid-wife in the mean time, who was always by at the Time of Dressing, applying the hot *Stuphes*.

At a Weeks End from the Separation of the *Eschar*, the Discharge lessen'd, and the Patient seem'd to grow stronger, the *Ulcer* in the Groin filling up with Flesh, the Tenderness of the *Abdominal Muscles* wearing off; so that I now endeavour'd, by gentle *Compression* and a straiter *Bandage*, as the Part would admit, to agglutinate the Cavity: But finding my Intention that way fruitless, when I had brought the external *Ulcer* into a narrower Compass, I seriously propos'd to her, finding her so exceedingly averse to the *dilating* or lay-

ing it open, Whether she thought preferable, a *Fistula* without cutting, with its Consequences at length, a gradual Wasting of her Strength by the Discharge thereof, or, in plain Terms, a *Consumption*, Or, a reasonable Prospect of her Cure by the said *Dilatation*? making as light as I could of this latter, for her greater Encouragement; when dressing up again for the present, I left her to consider of it till next Day; by which Time I found the Midwife's *Rhetorick* had prevail'd; and, with greater Resolution than I expected, she told me she would submit herself to my Disposal, who having provided all things ready, in a Dish by the Bed-side, (however out of her Sight) in order to the Work, viz. large Dossils of Lint roll'd hard up, of several Sizes, others of Tow, with Compresses of the same, a Plate with *Farina Tritici*, a Basin of *Oxycrate cum Alb. Ov. restrigent Powders ex Pulv. Gal. Bolo vero, Chalcant. &c. in distinct Papers*, as I should find Occasion, with a Roller of suitable Length, I took off the Dressings, again entering the Probe, and farther satisfying my self in the Course of the *Simus*, having, as I observ'd before, a thin Subject to deal with, trusting to my *Scissars*, I enter'd the Shank of the Button-End, and instantly cutting through, passed the same still higher up, my Patient knowing not my farther Design, when redoubling the Stroke, I laid open the whole Cavity, finding no other than a *venal Hemorrhage*, I clapp'd down my Dossils with what Dispatch I could, dipp'd first in the *Bole* singly, with which having cover'd the Bottom of the Incision, I laid down others of Tow, till the whole was fill'd up close; then laying on the Bolsters of the same, wrung out of *Oxycrate*, and sprinkled thick with the *Farina*, I brought over the Ends of a double-headed Roller alternately, as well up the Twist as round the



the Trunk of the Body, till I had made all secure; the Patient tho' making a great Noise, yet not fainting all the Time, but before Night she grew feverish again and restless; tho' we had provided for her a gentle *Anodine* Draught, she had slept but little, complaining of great Pain in her Belly, which when she happen'd to cough, from the Shock of the *Diaphragm* together with that of the *Peritoneum*, forced her upon crying out.

On Removal of our Dressings the next Day, I perceiv'd an *Inflammation* all round the Wound, the Edges or Lips thereof lying high and turgid, from their Contusion by the Scissars and *Indigestion* of the same. The lowermost Dossils still adhering to the *Peritoneum*, I forbore using any Force to extract them, chusing rather to let them digest off themselves; which I now endeavour'd to promote, by laying softer Dossils of Lint dipp'd in a warm Mixture of *Liniment. Arcai*, with about a fourth Part of the *Bals. Tereb.* having, whilst the same was provided, laid on a warm *Stuph* express'd out of hot Wine ready at Hand, till the former *Fomentation* was provided; then covering the Outside of the Wound with a large Pledgit of Tow faced with the *Liniment* aforesaid, first embrocating the whole Belly with the Mixture *ex Ol. Amygd. Sperm. Ceti*, &c. covering the Parts with a soft Flannel, and instead of the Roller, which their Soreness would not suffer for the present, a large Napkin folded in two, being placed the Middle under her Hips, with the Ends brought over and fasten'd on the upper Part towards the sound Side, for keeping on the Applications only.

By reason of her Cough, which seemed now more than ever to give Disturbance, I directed the following *Linctus* and *Apozem*, with a *Pearl Julap* to refresh her under *Languor* of Spirits.

R $\acute{e}$  Ol. Amygd. d.  $\mathfrak{z}$ ss. Sperm. Ceti cum eodem optime incorporat.  $\mathfrak{z}$ j. Syr. de Meconio  $\mathfrak{z}$ j. Syr. Bals. Tolut.  $\mathfrak{z}$ ss. Sacchar. cand. alb. pulv. parum m. exactissime pro Lin-  
tu, cujus capiat Cochlear. argente Tussi, & superbibat  
Haustulum tepesfactum Apof. sequentis.

R $\acute{e}$  Decoct. Pectoral. depurat.  $\mathfrak{t}$ ss. Tinct. Croci Aq.  
Theriac. Extr.  $\mathfrak{z}$ ss. Syr. Capil. Ven.  $\mathfrak{z}$ j. m.

R $\acute{e}$  Aq. Lact. Alex. Ceras. nigr. a  $\mathfrak{z}$ iiij. Cinnam. Hord.  
Pæon. C. a  $\mathfrak{z}$ ss. Margarit. pp.  $\mathfrak{z}$ j. Sacchar. q. s. m. f.  
Jalapium, cujus (phiala prius agitata) capiat Cochl.  
tria vel quatuor in Languoribus.

Continuing costive, I thought it now absolutely necessary to empty her Bowels, by throwing up the Clyster formerly prescribed, which answering the Intention, she grew much easier, in the Evening slept tolerably, and seemed therewith refresh'd the next Morning, when coming to lift out the *Dossils* with my *Forceps*, I found the Lips of the Wound digesting, less tumify'd, the Belly also much less inflamed, the lowermost *Dossil* now rising with the rest, appearing also with Corruption; which being remov'd, I could plainly discover the outward Membrane of the *Peritoneum* lying bare, between four or five Inches in Length, and about one in Breadth: After which laying down gently a soft one dipp'd in the warm *Balsam*, I lightly fill'd up the Cavity of the Wound with more, and a Pledgit on the Surface as before, arm'd with the *Liniment*, dressing up again, my Assistant the Midwife always taking Care to apply the Flannels wrung out of the *Fomentation*.

And thus we continued daily, till the *Membrane* incarnating, and the *Symptomatic* Fever with Pain and  
Inflam-

*Inflammation* being dispers'd and gone off, she was capable of bearing a gentle *Compression* and *Deligation*: Matters appearing in great Forwardness for a speedy Cure; till by an Error committed in drinking a Draught of small Beer, she fell into a *Diarrhœa* with *Cholic* in her Bowels, much hindering the Advance thereof; the Flesh now sinking, and as it were melting away, cold Sweats and *Deliquium* frequently, as at first, returning; for which I made the Provision following.

R $\bar{x}$  Conf. Fracast. s. m. ʒj. Coral. rub. Spec. de Hyacinth. ā ʒss. Rad. Rhei parumper tost. gr. vj. Ol. Cinnamonom. Chym. veri gut. j. Extr. Thebiac. gr. j. Syr. de Mentha q. s. ut f. Bolus Sumendus statim, & repetendus 5ta quaque hora (Extracto tamen omisso) & superbibat Haustulum calidum Apof. sequentis, cujus bibat loco alterius potulemæ, dum sit proclivis ad Fluxum Alvi.

R $\bar{x}$  C. C. C. ʒij. Nuc. Mosc. contus. ʒj. coquantur cum Crusta Panis albi in Aq. Font. q. s. pro Colatura ʒjss. sub finem addendo Coccinel. contus. ʒj. Liquori per Setaceum trajecto adde Aq. Cinnamonom. Hord. ʒij. Mirabil. ʒj. Sacchar. alb. chrystal. q. s. m. f. Apofema.

R $\bar{x}$  Aq. Lact. Alex. Cinnamonom. Hord. ā ʒiij. Conf. Fracast. s. m. ʒij. f. Mixture in promptu, de qua propinentur Cochl. duo post singulas sedes, Vitrum concutendo tempore Usus.

R $\bar{x}$  Apof. superscript. Vini Canariens. ā ʒij. Theriac. Andr. ʒss. Solve cum Vitello Ovi & f. Enema, injiciendum post Bolum secundum, hora una vel altera tamen præterita fluxu adhuc persistenti.



By these Means, continued for two Days or thereabouts, the Loosness was check'd, and her Pains wore off: When to regain the lost Flesh, I sprinkled upon the *Ulcer* the fine Powder of *Myrrh*, *Aloes* and *Sarcocolla*, as I had before done the *Precipitate* to mundify, laying over still, as a *Digestive*, the *Liniment Arcaei*, by which Method we got daily Ground, without farther Relapse, and being fit for the same, it was *cicatrised* with my *Cerate*.

After this so remarkable Escape, I advised her to the *Asses-Milk*, and the *Milk-Diet*, by which her Cough and Hectical Disorder wore off, and was entirely vanquish'd: She recovering a good State, and has since born two Children, without suffering any unusual Disorder thereby.

HIST. 113. A Woman also middle aged, but of strong Habit and *Sanguine*, the same Person taken notice of in our last as practising *Midwifery*, after her own Labour, depending very much on her Constitution, rising too soon, the *Lochia* stopping, was seized with *Shivering*, and being got to Bed, soon after great Heat and Thirst, Oppression on the *Precordia*, with a quick and labouring Pulse.

The next Day she complained of great Pain in her Belly, which being taken for *After-Pains*, or a *Cholical* Disturbance, she took of her own Advice, some *Sperma Ceti* mix'd with *Myrrh*, also a Clyster of a Decoction of *Chamomile Flowers* and Oil of *Aniseeds*: But finding it a Case out of her own Reach, and no Relief from these or other Remedies she had taken, her Fever and Pain encreasing, the third Day she beg'd my Assistance.

Examining the Part, I perceived from the Navel downwards towards the *Pubes*, great *Induration* through the Muscles, the same being so tender that she could bear no handling without great Complaint, but as yet there was no *Inflammation*; where-

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wherefore I directed only for the present, the following *Liniment*, as an *Embrocation*, with an *Alexipharmic Bolus* and *Julap*, to promote a gentle Perspiration, subdue the *Malignity*, and excite the *Uterine Discharge* or *Cleansings* now suppress'd, and giving Rise to this Disturbance.

R $\acute{e}$  Pulv. Lapidis Contray. ʒj. Troch. de Myrr. pp.  
ʒss. Croci Castor. a gr. v. Conf. Alker. s. o. q. s. m. f.  
Bolus vja. quaque hora repetendus.

R $\acute{e}$  Aq. La&t. Alex. Pulegij ā ʒiv. Bryon. C. ʒij.  
Sacchar. alb. q. s. m. f. Julap.

R $\acute{e}$  Ol. Lumbric. Amygd. d. ā ʒj. Sperm. Ceti ʒj. m.  
f. instar Linimenti ad usum externum panno wallico tepesacto superposito.

But the Hardness still rather encreasing, and she fancying she got Cold in the Time of Anointing, I order'd a Plaister to be laid on, of two Parts the *Diagalb. Batei*, and one of the *Mucilages*, to be continued for some Days, with Advice to have her *Boles* repeated as before directed.

The second Day after, she sent to me again, and coming to see her, I understood her Complaints were encreased, her Fever high, but her Spirits much exhausted for want of Rest: She now told me her Pain was attended with great Throbbing upon the *Region* of her *Womb*, taking off the Plaister, I felt the *Induration* rather increased, but lying very deep, and inferring by her Pain there was Danger of an *Abscess*, I threw aside the Plaister for an *Anodyne Cataplasim ex deco&to Flor. Chamomel. Melilot. Sambuc. in La&te, Mica Panis in consistentiam redact. & vitellis duorum Ovor. cum tantillo Croci additis*, the Belly being first embrocated with the

the *Liniment* before order'd, and the Application secured by a fine Towel reaching round her, and pin'd easily on one Side.

In the Evening, or a about Midnight, she grew *delirious*, and the next Morning visiting her, I found her in great *Agonies* through Excess of Pain, attended with *Rigors* so strong as made the Bed to shake under her, with sick and fainting Fits, likewise Suppression of *Urine*, for which, and to sooth the Parts of the lower Belly, much constipated through the great *Tention*, I instantly directed ℥x. of the *Decoct. Com.* ℥ss. of *Terebinth. Ven.* ℥ij. of *Ol. Lini Rec.* with the Yolk of an Egg, to be thrown up Clyster-wise; on Account also of a *Flatulent* or *Spasmodic* Twitch upon the *Membrane* of the *Pleura*, frequently recurring and shifting from one Side to another, with a Cough rendering the same almost insupportable, the following *Linctus* and *Aposem.*

R̄ *Ol. Amygd. d.* ℥iss. *Syr. Papav. Rhead.* ℥i. *Sperm. Ceti.* ℥j. *Sacch. cand. Pulv. q. s. ut f. Linctus.*

*De quo (phiala conquassata) capiat cochlear largum Bolorum intervallis, superbib. ℥iv. Apof. sequentis califaciti.*

R̄ *Decocti Pect. depurat.* ℥jss. *Aq. Pulegij* ℥iv. *Fimi Equin. peria ligat.* ℥iij.

*Stent infusione calida per horam, bis terve agitando Vase. dein per subsidentiam depuretur; colatura admodum hoc modo clarifac̄ta adde Aq. Theriacal. ℥iij. Syr. Papav. errat. ℥j. Ol. carui gut. iv. m. s. Aposema.*

Upon taking off the *Pultis*, an *Inflammation* now appear'd with the *Tumour* much encreased, *Matter* also, as I apprehended, tho' exceeding deep, seeming



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ing to fluctuate about that Region, laying down the same *Pultis*, I directed this which follows to be got ready against the Afternoon.

*R. Rad. Alh. Lil. alb. ā ʒij. Fol. Malva, Mercurialis, Perietar. Verbasc. ā mj. Flor. Chamomel. Melilot. ā mfs. Ficum ping. No. xx. Sem. Lini ac Fenugr. ā ʒj. incisa ac contusa, coquantur sufficienter ut per cribrum usui isto adaptat. trajiciantur, vel alioquin in mortario ad pulpam cum pistillo redactis, adde pinguedinis anseris, vel illius defectu, Butiri insulsi ʒij, & f. infar pultis, cujus pars proportionata (media fortassis) cum quarta Theriac Lond. admixta supra linteam duplicat. crassiuscule extensa, apponetur prius tepesacta parti abdominis tumefacto.*

Directing her Boles to be still continued, only leaving out the *Troch. de Myrrh*, whose Taste she could no longer dispense with, and adding the same Quantity of the *Spec. Diamb. s. o.* I took my Leave of her for that Time; and indeed by her present Aspect, with the cold Sweats on her Forehead, and weak fluttering Pulse, was doubtful whether I might find her alive next Day: But by the Strength of her Constitution, she had struggled through another Night, in Extremity of Pain and restless, as were several of the foregoing.

I found the Tumour now high and prominent, and Matter also more palpable to my Fingers, so that laying on the Remainder of the *Pultis*, I promised to return in the Evening, and give Vent to the same: She had only one Stool from her Clyster, but made not a Drop of Water, which I imputed to the Inflammation of the Bladder, suffering by Consent as it were, so near at hand with the Uterus, and which was not likely to come to rights, till the *Apostem* was discharged.

In

In the Evening I laid a *Caustic* of the Compass of a Shilling, being in great Concern for the poor Creature till next Day; when I visited her early, found her wonderfully over-joy'd, and in great Ease, the Swelling she told me was broke, and a vast Quantity of a horrible stinking Matter, which I perceiv'd so soon as ever I enter'd the Chamber, had run down her Belly, gushing between her Thighs, several Clouts and Napkins wet therewith, lying in the Corner of the Room for my Inspection.

But coming to unpin the Napkin, and remove the *Pultis*, I found the *Tumour* indeed subsided, and as it were vanish'd; but, to my great Surprise, the *Eschar* fast and dry, not one Drop of Matter issuing thence: Wherefore examining more narrowly, and taking away the Cloth thrust up to the *Pudenda*, I call'd for a Candle, perceived more of this stinking *Pus* draining off, and as I laid my hand and pressed lightly on the Top where the *Eschar* was, it ran forth the *Vagina* as it were in a Stream, a plain Indication that the Seat of the *Abscess* was in the *Uterus*, at least betwixt the Coats thereof, which having not only the *Peritoneum*, but the *Abdominal Muscles*, that is, their *Aponeuroses* towards the *Linea alba*, and common outward *Teguments* to pervade, or make its way, being just arriv'd at the same, burst through the inner *Tunic*, and empty'd it self by the *Cervix* into the *Vagina* aforesaid: Affording certainly, however easy at present, a very doubtful Event, where so many *Membranous* and *Nervous* Parts were corrupted, and threatened by the Putrifaction: Yet that I might not dispirit the poor Woman, I concealed all Apprehension of Danger, and encourag'd her to hope now for her Recovery, assuring her of my utmost Help: And indeed, tho' I expected

pected nothing for my Pains, I did what ever was in my Power in order to the same.

The *Eschar*, which I had no Occasion to perforate, was dress'd up with the common *Digestive* of *Basilicon*, with a large Plaister of *Diagalbanum*; over this a broad Swathe or Belly-Band, pin'd slack by reason of the Tenderness yet a while of the Parts: Whilst I directed the *Fomentation* and *Injection* as follows, to be provided against next Day, together with a *Womb-Syringe*.

R $\bar{x}$  Summit. Centaur. Hyperic.  $\bar{a}$  mij. Absinth. Rom. Fol. Laur. Flor. Chamomel. Melilot.  $\bar{a}$  mj. coquantur in Elixivii tenuis q. s. ad Colaturæ lbij. cuius singulis lbj. addentur tempore usus Spir. Vin. Camph. ʒij. Utatur pro foru, pannis laneis in eodem servefacto intinctis & fortiter expressis Regioni Uteri applicatis.

R $\bar{x}$  Summit. Hyperic. Centaur.  $\bar{a}$  mj. Hord. Gallid. ʒj. coquantur in Aq. F. q. s. pro lbj. Colaturæ, cui adde Mel. Rosar. ʒij. & f. Mixtura, Metrenchita seu Syringe auxillio tepide in Uterum frequentur in die injicienda.

Leaving these Directions, I came again the next Day, and caused the Belly to be fomented (taking off the Plaister) with *Stuphs* express'd hot and dry out of the *Decoction*, renewing them for about Half an Hour, as they grew cold: Then dressing up the *Eschar* with the warm *Basilicon*, as before, and laying on the Plaister, after which, with the *Syringe*, I threw up some of the *Injection* warmed, by the *Pudenda*, giving Instructions to the Nurse how the same should be done in my Absence: And thus we continued dressing some few Days, till the *Ulcer* being better digested, and the *Discharge* much decreased, I changed the *Injection* for the follow-



following, more *deterfive*, or, as the *Surgeons* call it, *mundificative* or *cleansing*.

*Rx Summit. Centaur. Min. Artemis, ā mj. Rad. Aristoloch. rot. ʒss. Gent. ʒij. coquantur in Aq. Hord. q. s. ad ʒij. addendo Colatura Mel. Ros. ʒij. Tinct. Myrrh & Aloes, Vino albo extr. ʒss. m. pro Injectione priori modo utenda.*

I might have told you, that from the Time of the *Abscess* bursting, the Symptoms of *Fever*, *Pain* and *Inquietude* went off, she also rendered her *Urine* well as before her Illness, and we daily got Ground, notwithstanding the dangerous Situation of the *Ulcer* we had to deal with, the Discharge not only lessening, as we have already observed, but the *Putrifaction* being corrected, the *Matter* appearing now laudable, and no way offensive.

She seemed indeed in great Danger of falling into a *Hectic*: But by ordering a *Milk-Diet*, *Barly-Water* and *Milk*, *Balsamic Electuaries*, with *Traumatic* or *Vulnerary Decoctions*, as I shall insert them presently, the same was happily prevented.

The *Eschar*, by reason the *Matter* was fled from it, and passed off another way, was the longer before it *digested* off, which being separated, the *Belly* lank and the *Muscles* flaccid, for my Satisfaction, I passed a *Wax-Candle* of sufficient Length, by the *Vagina* into the *Uterus*, and thence up to the outward *Ulcer* on the *Abdomen*, but the same bending in its Passage, I was disappointed: I then try'd a *Woman's Catheter* in the Stead of a *Probe*, but found the same insufficient, not being long enough to answer my Ends: The next Day, I brought a stronger *Candle*, and bending it upwards into a Form as I thought best suiting my Enquiry,

Enquiry, I introduced the same as before, without the expected Success: Yet, tho' I could never pass so high as the *Ulcer* in the *Abdomen*, at about two Inches beneath, I plainly felt the Extremity thereof under the common Coverings, which induced me to think, that the *Matter* thus suddenly breaking inwardly, and venting it self by the *Pudendum*, had either not entirely rotted the *Aponeuroses* of the Muscles above, or made way by some oblique Passage I could not discover now, by reason of the *Coincidence* thereof, after its sudden sinking away.

Be this as it will, it was very apparent the Body of the *Womb* must have suffer'd great *Solution* and *Ulceration*: For the farther healing whereof, and consolidating the Breach above, having corrected the Flesh here, by sprinkling the *Precipit. Rub.* and now dressing the same with *Linim. Arcei* in place of the *Basilic.* I continued my *Deterfive Injection* till the Discharge still lessening, and the *Matter* of good Colour, without ill Scent, and of as good Consistence, I substituted the following.

*Rx. Herb. Agrimon. Plantag. Sanicul. Equiset. ā mj. Rad. Symphiti ʒj. coquantur in Aq. Fabr. q. s. ad ʒijss. Sub finem addendo Vini rub. ʒiv Colatura adde Mel. Rosar. ʒij. & f. Injunctio Uterina, ut prius injicienda.*

At the same Time I dip'd an armed Probe in a Mixture of *Mel. Rosar. cum tantillo Tinct. myrrh.* with which I dap'd the outward *Ulcer* upon the Fall of the *Eschar*, that the same might diffuse it self downwards through the Membranous Parts, if finding Passage towards the *Ulcer* in the *Uterus*, with good Compress all round, and circular Bandage,

dage, as the Sense of the same would admit, endeavouring their *Agglutination*, which was very remarkably, in a short Time also, accomplish'd, and the *Ulcer*, as well outwardly as inwardly healed up: The former giving us little more Disturbance, than if the said *Eschar* had been made on any other Part unconcern'd with the *Abscess*, altho' the first Days there was certainly a near Communication.

If it be here enquir'd, Why I used no *Injection* from the outward *Ulcer* into the Cavity underneath, as well as by the *Vagina* to the *Uterus*? I answer, that the *Abscess* breaking thus before I was aware, or could have Opportunity of cutting through, had render'd, as was manifest, the Communication less pervious to the same, by that time the *Eschar* was cast off: Besides, had the Intercourse been more demonstrable, I should object first of all my Fears, that if the same could not have found its Passage, as did the Matter, by the outward *Priviety*, it might have hindered, rather than promoted, *Consolidation* of the Parts, by increasing the *Simulosity*, or falling into the *Pelvis*, laid Foundation for some after Disturbance, to which the same was not so liable in passing up to the *Uterus*, whence its Return back was more facile and commodious: Besides, as the outward *Ulcer*, or the Parts immediately underneath, had now no Marks of Putrifaction, but returned in few Days to their former sound State, lying soft and easy without *Tention*, *Inflammation*, and but little Hardness; the gentle Warmth of a *Spiritous Fomentation* round about, with the *Liniment*, *Tincture* and *mel*, (the *Slough* being cast off, and the *Ulcer* mundify'd,) were all which were requir'd or found wanting.

The *Balsamic Electuary* and *Vulnerary Decoction* I kept her to, for the greatest Part of the Time after

ter



ter the breaking of the *Apostem*, and which I dare say afforded great Assistance in expediting her Cure, were these.

*Rx Conf. Ros. rub. ℥iss. Bals. Lucatel. ℥ss. Pulv. Oliban. ʒjss. Bals. Peru ʒj. Syr. de Symphito q. s. m. f. Elect.*

*De quo capiat ad magnitud. n. m. mane ac vesperi superbibendo ʒiv. Apof. infra scripti, cujus eandem quant. bibat per se quarta pom.*

*Rx Rad. de Symphito ʒj. Fol. Capil. Ven. Tussilag. Hyperic. Alchymil. ā mj. Plantag. Pentaphil. ā mss.*

*Coquantur in Aq. F. ʒvj. ad Medias sub finem addendo Vini alb. ʒss. & Colatura clara per subsidentiam Syr. Bals. Tolut. ʒj. singulis ejusdem libris.*

A Butcher's Wife, by the Bars without Bishops-Hist. 114  
gate, of a full and strong Habit, after a hard Labour and undue Cleanings, fell into a putrid Fever, intermitting with irregular Exacerbations and Remissions; soon after which, from a Translation of the morbid Matter settled thereon, she began to make Complaint of Pain at the Bottom of her Belly, as I remember, on the left Side thereof, where she quickly perceived a Hardness gradually increasing, insomuch that she was hindered from going about, or standing upright, and indeed at length from sitting in her Chair, being wholly confin'd thereby to her Bed.

After several Weeks she consulted me, who found her, through the great Inquietude and Fatigue of Pain, reduced of a sudden, from a fat and bulky, to the Condition of a *Hectical*, emaciated or *Consumptive* Person, with violent Cough, attended with extravagant or profuse Sweats: To moderate which, and temper her Blood, I pre-  
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Y
scribed,

scribed a *Pectoral Linctus ex Ol. Amyg. d. rec. Sperm. Ceti ac Syr. Dialth.* likewise an *Apossem ex Decocto Pect. cum Syr. Bals. Tolut.* for her Heat and Sweats, as also the Trouble she had in rendering her Urine, an *Emulsion ex Sem. iv. fr. Papav. alb. Amygd. dul. decoct. in Aq. Hord. cum Gum. Arabic. solut.*

To the Tumour, which lay deep under the Muscles, stretching from the Groin upwards, but without any Appearance of coming to Suppuration, a Discutient Fomentation, with some Emollients added thereunto, such as a *Decoction ex Summit. Centaur. Hyperic. Flor. Chamomeli, Sambuci; Fol. malvæ, Verbasci, parietar.* in Milk, with soft Flannels wrung hot out of the same; after which a Gummy Plaster was laid on.

But these making no Impression, the Tumour continuing at a Stand, and her Strength daily decaying, through her want of Rest, she sent for Dr. B—l, who gave her several Antefebile and Antispasmodic Medicines, for the Convulsions, as she called them, in her Bowels, not much regarding the Induration: And being tired with his Course, she called in Sir D—d H—n, who returned her to her Oil and Sperm. Ceti, with a gentle Anodyne Draught Night and Morning, ex *Ol. Amygd. & Syr. de meconio a ʒss.* with the foregoing also a Pulvis of a Decoction of some of the like Plants thickened with Crumbs of White-Bread; telling her, (in the usual Phrase of some who render themselves difficult to come at, or rise rather by Management than Merit) that had he been call'd sooner, he could have cur'd her; but it was now too late, the Case being so far gone: Which implies, I think, somewhat like, if not the very same, that those who had been first consulted, and who had some Pretensions to a better Knowledge in Surgery, tho' not

not to the Practice of *Deliveries*, than himself, had not acted as they ought.

Thus leaving her with this Melancholy *Prognostic*, they contented themselves several Days, or, I think, I may say Weeks after, with their own and other good Women's Experiments, so great an *Oracle* having given up her Case, till the Swelling farther advancing, she was persuaded to send to me again, and request my Help.

I found her still weaker than when I left her last, with great *Oppression*, quick and low *Pulse*, *Flushing* in the Cheeks between whiles, drowned as it were in Sweats, her Cough still continuing, and the *Facies Hippocratica* now apparent.

The Tumour was indeed risen higher, but without *Inflammation* or *Fluctuation* underneath, tho' more reason than ever to believe, if she held out, it would terminate that Way: Wherefore I advised them, to lay on an *Emollient* and *Maturative Cataplasma*, leaving out the *Discutients*, and adding the *Rad. Lill. cum ficub. ping.*

I persuaded her also, as the last Recourse, to drink the *Asses-Milk*, with a Morsel of the *Absorbent Elect. ex Conf. Rosar. Spec. Diatragac. Margarit. Coral. rub. cum Syr. Dialth.* and the following Mixture for her Cough, also a *Julap* when faint with Sweats.

*Rx Aq. Cinnamom. Hord. ℥ij. Syr. Bals. Tolut. de Meconio ā ℥j. f. mixtura cujus capiat Cochlear prelargum aliquo tempore tussi magis infestante.*

*Rx Aq. Laet. Alex. Ceras. nigr. ā ℥iv. Cinnamom. Hord. Pæon. C. ā ℥iss. Creta alba purif. Margarit. pp. Coral. rub. pp. ā ℥ss. Sacchar. albi Chrystal. parum. m. f. Julapium de quo (vitrum agitando) capiat Cochlearia vel quatuor in languoribus, & sudoribus obrutus.*



Thus visiting once in two or three Days, till at length the Part began to inflame, the *Induration* softening, and *Matter* fluctuating underneath, I met her *Surgeon*, and advised a *Caustick* to be laid on the rising Part: The Day following we came again, when thrusting his Lancet into the *Eschar*, there discharged a Pint Bason full of a stinking greenish *Pus*: After which she grew easy, and her Sleep, whereto she had been long a Stranger, return'd naturally.

The *Eschar* was dress'd up with the common *Digestive*, a *Pledgit* thick spread with *Basilicon*, and dip'd in a melted Mixture of *Liniment cum tanillo Ol. Tereb.* a *Fomentation* being also provided to comfort the Parts of the lower Belly, promote the *Digestion* of the *Ulcer*, and dissipate the *Induration*.

After three or four Days, according to Appointment, we met again, and examining farther into the Condition thereof, found a manifest Penetration through the *Peritonæum*, into the *Pelvis*, whence the *Matter* issued out, tho' not so strong scented as at first, yet in large Quantity, threatening a *Fistula*.

The *Caustic* had designedly been laid on pretty large, or about the Compass of a Shilling, and consequently the *Ulcer* left behind still larger, in which the *Flesh* lay round about all putrid, and on pressing of the same, a strong *Flatus* would issue forth in Bubbles, making a loud Noise.

The *Eschar* being separated, the same was strowed thick with the *Precipitat. rub.* and a soft Dossil, ty'd with Thread for its Extraction, being first dip'd in melted *Liniment*, a little *Bals. Terebinth.* and the *Tincture* of *Myrrh*, was laid down close to the Bottom, leaving however sufficient Room for the *Matter* to empty it self between the Times of Dress-

## Se<sup>c</sup>t. X. Of Tumours in Child-bed Women.

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Dressing, after which others, till the whole Cavity was filled up; and lastly a large *Pledgit* of Tow, armed with the *Liniment* by it self, for the Outside, laying *Compresses* as well of Plaister as Cloth, where we suspected the Matter most likely to lodge or be detained within, to press it forth and dispose the Parts for *Agglutination*, by the Help of *Bandage*, as well up the Twist as round the Trunk of the Body.

Thus did the *Surgeon* continue Dressing, till the *Ulcer* was well *deterged*, and a sound Flesh began to appear, during which Time she kept to her *Asses-Milk*, and daily recruited in her Flesh, her Appetite returning: When after some Weeks the Discharge lessening, and gradually dreining away, the Cavity fill'd up, and, with the common *Epulotics*, was at length firmly *cicatrised*: Since which Time she is again grown strong and lusty.

These three Cases I have inserted, as very remarkable for the Recovery of each, under the most threatening Circumstances, whilst many others, I have attended at these Times, have died miserably; the *Tumours* either never coming to *Suppuration*, but tending to *Gangrene* and *Mortification*, making hereby a more quick Dispatch; or turning to *Matter* out of Reach of coming to, at least so as to cleanse the Bottom, and lay a Foundation for healing, incurable *Fistula's* have arisen, and the Patients, after much Pain and Penance, as well *Physical* as *Chirurgical*, have obtain'd their *Quietus*.

Of a Procidencia Uteri, ac Prolapsus  
Vaginæ ejus.

Proci-  
den-  
tia Uteri.

The next of the Distempers mention'd, peculiar also to the *Female Sex*, is that vulgarly by Authors named *Procidencia Uteri*.

It has been questioned by some, whether the *Womb* it self is capable of having its Inside turned outwards: And truly, in its natural State, by which I mean that wherein the Woman is not with Child, I think it is scarce possible: Its close, and usually contracted Mouth, (by some compar'd to that of a *Tench*) by no means admitting its *Fundus* or Bottom to fall through: But at the Time of Delivery, the Case is alter'd, and the Entrance, which before would not admit a Finger, affords now a Passage to the *Fætus* and *Placenta*, and may perhaps therewith, tho' I believe very seldom, let through its upper Part; especially, where the ignorant Midwife pulling hard by the *Navel-String*, the After-birth adhering thereunto, contributes to the Misfortune, and renders the Case very deplorable.

But altho' this is a rare Accident; yet is it very common for weakly Women, not only after difficult *Child-Birth*, but other laborious and hard Exercise, by which the *Ligaments* of the *Womb*, that is, the *broad Ones*, have been distended, or by some *Humour* relaxed, to have the Body of the *Uterus* let down very low into the *Vagina*, its *Cervix*, or internal Orifice, appearing just at the Entrance of the *Labia Pudend.* And this truly is the usual *Prolapsus Uteri*, that, for which it has been by some mistaken, being the *Extraversion*, for so I chuse to name it, or turning out of the inward *Tunicle* of  
the



the *Vagina* or Sheath, whose Structure more favours the same: For being made up of many *Plicæ*, Folds or Wrinkles the better to suit, not only to the Man's *Penis* in the Time of *Coition*, but to the large Body of the Infant at that of its Exclusion; and these *Plicæ* also besmear'd always with a *Glandulous* Liquor, much more in some *Valetudinary* States; a Deluge of other Humours also attending, as, in the *fluores albi ac catamenia nimis abundantia & diu continuentia*, it happens that its Tone being hereby weakened, and the Spring of the orbicular Fibres of its Muscle at the Entrance destroy'd (for here we find there is a *Sphincter* as well as in the *Anus* thereto adjoining) a Relaxation attends, and the *Plicæ* aforesaid being obliterated, the internal Membrane falls through the *Privity*, hanging, if not supported by the String-Cloth, between the Woman's Thighs, for several Inches, which has given Occasion to some, when finding the same distended by a Fluxion, appearing hard, round and globular, to fancy the *Womb* it self is, as they express themselves, now inverted.

This Disease, when of long Standing, is indeed difficult of Cure, and frequently admits of no other than *Palliative*: Whether a Bearing-down of its Body, beyond its natural Dimensions in the *Vagina*, through the Weakening of its Ligaments, as aforesaid; or the Turning-out of its Sheath from its *Sphincter* being relaxed, and its rugous Coat unfolded.

In order to the Remedying either Disorder, it is necessary, that the Patient give herself all the Rest that she can, avoiding more particularly the lifting or carrying heavy Burthens, much Walking or Riding, whether in a Coach about the Streets, or on Horse-back out of Town; keeping still and quiet, either Sitting, or, which is still preferable,

lying in Bed: Altho' it may be otherwise injurious, by rendering her *Cachectic*, and impairing that Way her Constitution, yet will it forward more than any Thing besides, the keeping up and resettling the weaken'd Parts: For as I very well remember a young Gentleman, who got rid of a Rupture by his Confinement under a broken Bone, being too active to have been restrained unless from meer Necessity: So do I also the Case of a Gentlewoman under this Infirmary, who, by the like Misfortune, keeping her Bed for about five Weeks, receiv'd more Help in retrieving her *Procidentia*, than from all other Means whatever she had used.

She must likewise avoid all gross, *phlegmatic* and *flatulent* Foods, or whatever, by an over *Humidity* or *Unctuosy*, may relax and weaken the *Ligaments*, or *Membranous* Parts of the Belly, by occasioning *Diarrhæa's* or other Fluxes; whilst her Diet is of like Nature with what we have directed for the *Oedema*, *Anasarca*, or for those coming out of a *Salivation*, drying, and of easy Digestion: The *Physical Regimen* otherways, being the same with that we have also before prescribed, for those labouring under the true *Hernia*, strengthening and conglutinating.

As for *Topics*, Plaisters have been directed by the Antients, to be worn forwards on the Region of the *Uterus*, as well as behind upon the *Loins* and *Spine*: Among the former Kind, is a famous one in the *Old London Dispensatory*, but now *obsolete*, called by a hard Name, *i. e.* *μντεγαροπλάστιχον*; of kin to this, and serving the same Purpose, are the *Empl. de Mastiche*, and the *Catagmaticum*.

Our modern *Physicians* now generally order *Galbanum* before, and *De minio* and *Ad Herniam ā p. æ.* behind: But some Habits will bear neither, by reason of the Heat of the *Gums* inflaming the Skin, and

and bringing out of Pimples with great Itching; at which Times, leaving the Belly free, I have order'd for the *Spine* the common *Defensive ex Diapalm. cum Bolo, Aceto & Ol. Ros.* with the Addition of some other *Restringents*, such as the *Sang. Drac. Ter. Sigil. Bac. Myrt. &c.* which they have worn with Advantage, at least as they have thought themselves, and without Complaint.

Among *Ointments*, the *Sumach* of the same *Pharmacopeia* was formerly also celebrated, in the like Weakness of these Parts.

Others recommend the *Suffitus* of certain *Gums*, as *Thus Mastich. Benz.* with the *Nux Mosc. Flor. Ros. &c.* thrown over a Chaffing-Dish of Coals; the Patient so placing herself, as to receive the Smoak thereof into her Body.

Others again, prefer the Steam of a Decoction received after the same Manner, prepar'd from *Styptic Ingredients*, particularly the *Cort. Querc. Gallæ immat. Bac. Myrtil. Cort. Granat. &c.* in the Smith's Water with Red Wine.

A late Writer in the *Mathematical Way*, tells us that these Remedies, particularly *Plaisters* and *Ointments*, are both trifling and injurious: But, with Submission, I must beg the Liberty to dissent from his Opinion.

*All that they can effect*, he says, *must be by their Stypticity, by which they contract the adjacent Fibres, whence the Juices will be driven in larger Quantity to the Vessels of the Womb, whereby Hemorrhages and Abortions will be hastened, the very Misfortune they are intended to remedy.*

Which *Corollary* is, I think, not rightly deduced, at least, I am sure, does not correspond with Fact.

How a *Plaister* on the *Spine*, or over the *Loins*, should influence the Blood-Vessels of the *Womb* after



ter such a Manner, is not easy to conceive, unless they had more immediate Communication, with those of the outer *Teguments* of this Region: And then, if the *Diameters* thereof were thus constringed, there might be Danger of this *Plenitude* rather *a parte ante*, than *a parte post*: But before they can reach to the *Spermatic* or *Hypogastric* both Veins and Arteries, which furnish the *Uterus*, they must pervade not only these *Teguments*, but the *Lumbar Muscles*, and the *Rami Iliaci*, whence these Vessels take their Rise.

Leaving this Enquiry, the Use or End that we propose by these *Topics*, and which we often find answer'd, (I believe our Opponent can give few Instances of a Miscarriage promoted by them) is by their kindly Warmth corroborating, as well as by their restrictive Power *bracing* up the lax Fibres, if I may be allow'd to borrow a Phrase from these Gentlemen, whence the *Membranes* and *Ligaments* seated round about, particularly those of this Part, *viz.* the *broad Ones* inserted into the *Ossa Ilea*, are invigorated and strengthen'd, together with that Part of the *Spinal Compage* they lie upon, as every one whose *cutaneous* Texture will admit them sensibly observes, and without which some Persons can no more dispense, through the Feebleness and *Aches* of these Parts, than others without the Support of their *Stays* or *Bodice*.

But, as before, waving Disputes, tho' I do not lay the Stress of a Cure upon these Remedies, yet I think them, as Auxiliaries, necessary to be continued, the like of the *Suffumigation*, both moist and dry, where the Woman is not with Child, which act by their exiccating Qualities, consuming the superfluous Humidities, constringing the Mouths of the *Glandules*, and giving a Sort of Tensity to the over lax *Fibrilla*, by which they may be somewhat

## Sect. X. Of a Procidentia Uteri, &c.

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what enabled to recover their enfeebled Tone, or to contract themselves and hold up the *Womb* suspended by them.

Whilst these are used, a *Pessus* of fit Length and Bigness, must be introduced by the *Vagina*, to keep up its relaxed *Tunicle*, and to support the *Cervix Uteri* from sinking down through the same, which are kept close by the *String-Cloth* or *T. Bandage*, being formed usually of some of the *Gums*, as the *Ammon. Galb. Opopon.* all comfortable to the *Uterine Parts*, melted down and formed into oblong Bodies, of the Length of a Finger, and the Thickness of the Thumb, being strung at the thicker and lower End, for the easier Extraction.

But instead of these, as too weighty and cumbersome, I have usually, after well fomenting the outward Privy with the *restringent Fetus*, rolled up a Flannel hard of the like Figure, and dipping it in the hot Liquor, lightly squeezing it, thrust it up into the *Vagina*; after which, a Bolster of the same wrung hard and hot, on the Outside, for the farther Security and Strengthening the Parts, with the *Bandage* as before, which has as well supply'd the Place of the *Suffitus* and *Pessus* too.

Whilst you are thus busied with your local Applications, the *Physician* must assist in mending or correcting the *Phlegmatic* State of the Blood, and strengthen the Tone thereof, by some warm invigorating Medicines, among which, after suitable Evacuation of the *Pituitous Saburra*, none exceed the *Bitters* with *Chalybiates*: Nor must you forget between whiles the *Styptic*, *Agglutinative* and *Balsamic* Ones, we have before observed, as the *Terebinthinate*, either from *Chio*, *Cyprus*, or *Strasburg*, made into Pills with the *Pulv. Rad. de Symphito*, *Croc. Mart. Ter. Japon. Coral. Sang. Drac.* or the like, drinking

drinking after each Dose, a small Draught of an *Apossem*, prepar'd of the *Simples* set down in the Cure of *Hernia*, to which, for avoiding Prolixity, I must refer, whilst I give you an Example or two of this Nature.

HIST. 115. A poor Woman, soon after a difficult *Child-Birth*, and hard Usage by her Midwife, complained of a great Weight and bearing down forwards, insomuch, that getting out of Bed, the Body of her *Womb*, as she thought, appear'd outwards below the *Labia*, and still increasing with great *Fluxion* and *Tumefaction*, in spite of all that several Midwives could do for her, at length stopping up the Passage of her *Urine*, she was recommended to a Man of that Profession, who told her, as she related after to me, that her *Womb* was turned out, and that he fear'd there was no Help: However, he directed a *Fomentation* to stuphe the Part, and advised her to apply to the *Surgeon*: Accordingly, having try'd his *Fetus* without any Relief, the Disease still farther increasing, some of the Neighbours, in her Behalf, came to beg my Assistance.

I perceived the prolapsed Body, whatever it was, thrust out like a Pint-Bottle, with its short but thick Neck upwards, hard and renitent, tending to *Gangrene*; upon which Account I scarify'd in several Places, and wrung a double Flannel out of boiling hot Claret, therewith surrounding the same till I could get a *Fomentation* and *Cataplasm* prepared.

The next Day, I was provided of a *Decoction* of some of the *Discutient*, with the *Emollient Simples*, as the *Summit. Absinth. Centaur. Hyper. Föl. Major. Pulegij Hyosciam. Laur. Malva, Verbasc.* with *Wood-Asbes*, the streined Liquor reserved for the *Fomentation*, whilst the *Magma*, being pulped, was boil'd

up



up in some of the same, and thickened with *Farina Fabarum*.

After I had well *stuffed* the Part, whence a large Gleet had issued forth from the *Scarrifications*, I wrap'd up the whole with a *Cataplasm*, adding about a Third of *Theriac Lond.* supporting it with her *String-Cloth*, and confining her strictly to her Bed, where, to fortify her Spirits and dispose her to a gentle Breathing, she took a Morfel of the said *Theriaca* in a Glafs of *Canary*.

The Day following, I perceived the *Tumour* begin to relax, by the Scattering her Water, which had been in a Manner for a Week past suppress'd, and which, since the Night before, was almost constantly dripping from her, which at the first Opening I took for Gleet, till I see it trickling down from the Top.

When I had bestow'd about Half a Dozen of the hot Flannels, express'd hard from the *Fetus*, I renew'd the *Cataplasm*; and found the *Tumour*, by the next Day, still farther subsided: Insomuch, that, by the Week's End, it began to appear flaccid, like an empty Bag, or like the *Scrotum* corrugating it self after the Dissipation a *Hernia Aquosa*; so that, leaving out the *Emollients*, I added some *Restringents* in their Place, as the *Cort. Gran. Flor. Balaust.* till at length I made Use only of the *Cort. Querc.* infus'd in equal Parts of the Smith's Water and Red-Wine: And finding it would now give way, after like Manner as we attempt the Reduction of a *Prolapsed Anus*, wriggling it from Side to Side with a hot Flannel, I got it up, and perceived plainly that it was no other than the wrinkled inward Membrane of the *Vagina*, relaxed more especially on one Side thereof, and distended or inflated to so great Bulk, the *Cervix Uteri* quickly showing it self above.

So

So soon as I had thus reduced the Part, I put up a Cork-Pessus wrap'd in Silk, advising her, upon Occasion of making Water, to draw it forth by the String, and introduce it again; as also to keep in her Bed for some Days, directing her the usual strengthening *Gelatinous* Foods prescribed for *Ruptures*, particularly *Comfry* and *Hartsborn* Shavings boil'd in Broths; the dry Diet also of *Guajac*. to prevent the Redundancy of serous Humours in her Blood, strengthening its Tone, and give some Springyness to the Fibres, that, by their *contractile* Property, they might be enabled the better to perform their Office; and in three Months, I see her about her Affairs Abroad, entirely recover'd of her former Weakness.

HIST. 116. An antient Gentlewoman, upwards of Sixty Years, having long laboured under this Weakness, which by supporting with her Cloth, she made a tolerable Shift to go about her House, after a Fit of Sickness, which had continued for some Weeks, and by a Loosness attending, was brought very low, through a meer Deprivation of the Native Heat in the Part, the *prolapsed Vagina* hanging some Inches out of the *Pudendum*, was seized with a *Mortification*: It was the first Case of that Nature I had ever seen, being now thirty Years past, and therefore I thought it necessary to call some more experienc'd Artist than my self, for an Assistant, when that able and honest Gentleman, Master *Layfield*, then living in *Lime-Street*, met me at her House, and examining the Condition of the Part, propos'd Extirpation thereof by way of *Ligature*; which having strait concluded on, I took two strong Needlefuls of sowing Silk, and waxing them together, pass'd them as high as we could reach, on the Pendulous and putrid Body, making the Tye thereon, and with a Knife a little below,

low, cut off the corrupt and stinking Part thereof: Afterwards fomenting those above with a strong *Elixivium* and *Spir. Vini Camph.* then melting a little *Bals. Terebinth.* with some of its Oil, together with a like Quantity of the *Tinct. Myrrh. & Aloes*, I armed a thick Wad of Tow, of the Compass of a Crown-Piece, with the *Ung. Egypt.* and dipping it in the hot Mixture, convey'd it close up to the remaining Part on which the Ligature had been made, with a *Stuph* express'd from the *Fomentation*, a dry one over that, secur'd by the *T. Bandage*.

After four or five Days thus proceeding, the *Mortification* being stop'd, the rotten *Sloughs* together with the *Ligature* falling off, the Parts *digested* and *deterged*, I healed with an *Injection* prepar'd *ex Decocto Fol. Plantag. Equiseti, Agrimon. Sanicul.* in a strong *Aq. Calcis*, adding  $\text{ʒij}$  of *Mel. Ros.* and  $\text{ʒj}$ . of a *Tincture of Myrrh* extracted in Red-Wine: After which she survived, free from any Complaint of the former Nature, for fifteen Years, dying truly aged.

A Maiden, under Twenty, from hard Work, put upon her in the lifting up and carrying heavy Burthens, being subject to the *White-Flux*, with great Weakness in the *Loins*, came in Company with her Aunt to ask my Advise for this *Prolapsus*: Upon stricter Enquiry or Inspection of the Part, by opening her Thighs only, without dilating the *Labia*, I observed the flapping *Tunicle* of the *Vagina*, hanging out like a Gut about two Inches, but without *Tumour* or *Inflammation*, so that by pressing at its Extremity, I could easily get it up to its Place within her Body, although, by walking cross the Room, it would presently appear out again.

She



She had indeed Youth, as they say, on her Side, yet the Relaxation was of so long standing, and become so habitual, that I was not over forward to promise a Cure: However, I began my Attempt thereof, by strictly confining her to her Bed, where she continued several Weeks, and used constantly twice a Day to put up a Piece of Flannel of the Thickness, tho' not the full Length of a Finger, rolled hard up, in the Place of a *Pessarium*, or, as it is named for Virgins, a *Nascaleum*, first dip'd and wrung hot out of the following Infusion.

*Rx Cort. Querc. ʒj. Granat. ʒss. Gal. immat. ʒij. Flor. Balaust. mss. Alum. rup. ʒj.*

*Infunde coram igne vase co-oporto per horas aliquot in Vini rubri austeri & Aq. Fabr. ā ℥ss. & reservetur collatura ad usum.*

She had always three or four of these *Nascals* ready at hand, with a Ligature at one End, by which to draw them forth, to shift them upon Occasion: And after the introducing each, as she lay in her Bed, her Aunt assisting, express'd also a double Flannel out of the same hot Liquor, and apply'd it close up to the *Pudendum*, for the farther strengthening the Genital Parts, renewing them, as they grew cold, for several Times.

I should have acquainted you, as a Thing very material, that before I directed these Local Applications, she had been purged, as her Condition would allow, at proper Intervals, with a Decoction of the *Radix Rhei, Tamarind. cum Sale Tart. & Syr. Ros. Sol.* to lessen at least the *Cacochymy* in her Blood, and obviate any Mischief arising from the damming up the Humours below, in corrugating the Pores of the *Lacuna*, spewing out their Liquor,

quor, according to some, into the *Vagina*, or co-  
arctating the *Cervix Uteri*, denying a Passage thence  
of the same, as others, and whilst remedying one  
Evil, laying Foundation for a greater.

During the Use of these *Topics*, for the farther  
strengthening the internal Parts, I now order'd  
the following *Mass* of *Pills* to be taken, as here di-  
rected, with the *Apossem*.

R $\bar{x}$  Pulv. Rad. Rhei ʒj. Mastich. Croc. Mart. rest.  
Ter. Japon. ā ʒss. Terebinth. ven. ad duritiem coct. &  
pulv. ʒij. Bals. Peru ʒj. Terebinth. Cypr. q. s. ut f.  
Mas. pro Pil. x. ad singulas drachmas, quarum qua-  
tuor vel quinque deglutientur mane & vesperi cum ʒiv.  
Decocti Jequentis superhaustis.

R $\bar{x}$  Rad. de Symphito ʒj. Tormentil. ʒss. Plantag.  
cum toto, Saniculæ, Bugulæ, ā mss. coquantur leniter  
in Aq. F. q. s. pro Colaturæ ʒss. sub finem addendo  
Vini Clareti ʒss. & præterea postea Syr. de Symphito,  
Syr. Bals. Tolut. ā ʒj. f. Aposema ad usum supraordi-  
natum.

To the *Spina Dorsi* was apply'd a Plaister *ex part.*  
*æqual.* Empl. de minio & ad Hern. from whence, as  
she express'd her self, she found much Comfort  
in raising her Body, and turning herself in  
Bed.

And thus, after about a Month or five Weeks  
Time, I permitted her to sit up therein a Days, and  
every other Night to get out of it for an Hour, till  
near a Fortnight longer, gradually enlarging the  
Time of her Stay, I gave her Leave to rise in a Morn-  
ing, and to move about the House, having first provi-  
ded her a couple of the *Nasalia*, shaped to the Thick-  
ness of my little Finger, enclosed in red Sattin, and  
fasten'd at one End: Which, when she got up, she

introduced and secured by the T. till, in about three Weeks, perceiving it did not come down when left out, and finding herself stronger in these and all other Parts, than formerly, she left them off, and never after made any Complaint of that Nature.

Before I took my Leave, I order'd the following *Corroborative Electuary*, and *Chalybiat Bitter*, to give, as it were, a Spring to the languid State of her Blood, render'd still more *torpid* and *lentos* by the Want of Exercise, and to invite Nature to do her Office by the *menstrual* Purgation, which had been in a manner altogether suppress'd, for many Months past, and which indeed answer'd every way our Expectation, as I understood sometime after by her Relation.

R $\acute{e}$  Conf. Anthos. Absinth. Rom.  $\bar{a}$   $\bar{z}$ ss. Pulv. Rad. Ari-  
c. N. Mosc. Condit.  $\bar{a}$   $\bar{z}$ ij. Syr. e Condit.  $\bar{z}$ zris q. s. m. f.  
Elect. de quo capiat quant. n. m. mane & sta pom. su-  
perbibendo Coch. quatuor Julap. sequentis.

R $\acute{e}$  Aq. Lact. Alex. Ceras. nigr.  $\bar{a}$   $\bar{z}$ iv. Absinth. mag.  
C. Vini Chalyb.  $\bar{a}$   $\bar{z}$ j. Rad. Gent. incis. nodulo ligat.  
& phiala suspens.  $\bar{z}$ j. Syr. Chalyb.  $\bar{z}$ ss. m. instar Ju-  
lapij.

And thus far of the *Prolapsus Uteri*, seu *melius ejus Vaginae*: As to the sinking of the Body it self of the *Uterus*, by Relaxtion of the Ligaments aforesaid, or when its *Cervix* or Neck falls down in the Sheath, and may be apprehended just within the *Labia*, the same Method must be used, in-joining Rest and Quiet, and putting up a *Pessus* to support it, till the Ligaments, being strengthened, are better enabled to hold it in its proper Place, taking especial Care, where the Weakness is promoted



moted by the *Uterine Fluor*, I mean the *White One*, that due Regard be had, by suitable Evacuation, to purge the *Cacochymy*, as we told you, and mend the *Cachectic Habit*; before you venture upon *restricitive* and *agglutinative* Remedies; lest otherwise, the same being impacted, or shut up in the Glandules of the *Womb*, or from the *Lacuna* spewed back into the Mass of Blood, a *Schirrus*, and thence a *Cancer*, seize upon the Part, or at best a Translocation to some other, to the greater Damage and Hurt of the Patient.

Whilst the foregoing Sheets were at the Press, the Beginning of this last *June*, 1722. a remarkable Accident, relating to this Subject, presented to us, as follows.

An elderly Woman, having been for some Years Crafy, as well in her Head, I mean her Intellect, as her Body, and longer incommoded with a *Procidentia Uteri*, which she was forced to keep up with her *String Cloth*, being otherwise scarce able to move about the House: Under a Fit of Melancholy, was pondering how to free her self from this Inconvenience, and, unknown to any Person of the Family, taking her Opportunity, first putting herself in a suitable Posture, with one Hand she draws down the *prolapsed* Body, whilst with her Husband's Razor in the other, got as it were by Stealth, she excis'd all within her Reach; then putting a Clout up to the Parts, she got into her Bed: Where, after short Time, the Blood being discover'd, and she questioned about the same, very sedately told them what she had done.

Upon this a neighbouring Surgeon was sent for, who restrain'd the *Hæmorrhage* with proper *Restrignents*: But the same Evening, the Flux being renewed, he call'd me to his Assistance: When or-

dering a large Tent like a *Pessus* to be made up, the same was dipp'd in *Oxycrate cum Alb. Ovorum*, then gently express'd and rolled over some fine *Bole*, particularly its Extremity, and so put up; next to this, a thick Pledgit or Wad of Tow, wrung out of the same, and sprinkled thick *cum Farina Fabar.* with the T. Bandage to keep all close.

The Day following, the Blood seemingly stanch'd, a *Digestive* was got ready, into which made warm, a Tent like the first was dip'd, and introduced: But coming the third Day, we found more Blood discharged, several *Grumes* or Clots following the Extraction of this last Application, so that we were forced to have recourse to our *Refringents*: And thus we continued for several Days, our Patient all this while Calm, with little *Fever*, and as little Complaint, in regard to what might have been expected from so desperate an Operation.

When the Flux was stop'd, and the external Privy cleans'd with a warm *Stuph* wrung out of Wine, we took a more strict Survey of the Parts, and dilating the *Labia* with my Fingers, in Expectation of finding a Wound on the relaxed *Vagina*, could perceive nothing like it, all lying fair and natural within our Sight: When entering my Finger as high up as I could reach, I plainly felt a large jag'd or unequal Wound, on the lower Part of the *Uterus*, whose *Os internum*, or whole *Cervix*, had been cut off: The Blood upon this Examination (tho' but in small Quantity) again following my Finger.

I then enquir'd after the Part thus strangely taken off, which they shew'd me put by in Water, and I perceiv'd the same, as I have represented it, the upper Part an Inch and Half deep, especially on  
each

each Side, somewhat narrower in the Middle, and still less on the under Side, or that lying on the *Rectum*, which, for the Curiosity, I desired the *Surgeon* to put into *Spirit of Wine*, and which he still keeps by him, to gratify any ingenuous Enquirer with a Sight thereof; of which Number the first Person I show'd it to, was Mr. Petty, in *Fenchurch-Street*: But proceeding.

After this Discovery, the Blood also entirely restrain'd, I advis'd a large Tent to be made up, as at first, whose upper Extremity was dip'd in a melted Mixture *ex part. iij. s. vel circiter Linimentz Arcei cum quarta Ol. Tereb.* passing it up against the gaping Wound of the *Uterus*: I also advis'd a warm *Fomentation*, which we were shy of sooner on account of the *Hæmorrhage*, prepar'd *ex Decocto Fol. Absinth. Cent. Hyper. &c.* and a proportionate Quantity of the *Spir. Vini Camph.* to be apply'd with *Stuphs*, not only to the *Pudendum*, but reaching up to the lower Belly, which were renewed for Half an Hour, Night and Morning, before the Times of Dressing up, whereby to comfort the internal Parts thereof, cherish their Heat, and promote Digestion of the Wound, which, at about ten Days End, began to appear laudable upon the End of the Tent, and in moderate Quantity.

After this, a *Womb-Syringe* was provided, and the following *Decoction* thrown in twice a Day, by way of Injection, to mundify the Wound: By its Situation I apprehended, less susceptible of an Impression from our *Balsams*, which were, however, still continued after the Use thereof,

Rx *Plantaginis cum toto, Summit. Hyperic. Centaur. ā mj. Hord. Gallic. ʒss. coquantur in Aq. F. q. s. pro ſbj. Colatura, cui per ſubſidentiam depurata adde Mel.*



*Rosar. ℥ij. Tinct. Myrrh. ℥ss. & f. mixtura cujus metrenchitæ auxilio, injiciantur Cochl. v. vel. vi. per Sinum Pudoris, prius tepesacta, bis in die.*

This having been used for some Days, and the Discharge still lessening, I substituted the following, more consolidating and agglutinating.

*R. Rad. de Symphito, Plantag. ā ℥j. Fol. Hyperic. Equiseti, Saniculæ, Bugulæ ā mss. coquantur in Aq. F. q. s. ad ℥xij. Colaturæ sub finem infundendo Vini rubr. ℥iv. & preterea Colaturæ superscriptæ addendo Mel. Rosar. ℥ij. f. pro Injectione prioris instar utenda, sed sæpius in die.*

By which I have great Hopes her Cure may be accomplish'd: She now gets out of Bed, takes her Nourishment and Rest, the Discharge from the Wound being inconsiderable; and the same bidding fair for the Healing suddenly.

I think this is the only Instance of the *ὑσπερία*, or rather *Uteri Cervicis Abscessio*, I remember to have met with in our Writers of Chyrurgery: At least, I am apt to believe the first Attempt this Way, for the Cure of its *Prolapsus*.

### Of a Cancer of the Womb.

Having here made Mention of the Cancer, I might inform you farther, that the *Uterus* is a Part subject to that cruel Distemper, to be known if within Reach of the Finger, by its Stony Hardness, if out, by its cutting and acute Pains, communicating by its *Ligaments* with the *Loins*, and especially the *Hips*, which, at these Times I have observed

observed much affected. If the same is ulcerated, there are frequent and great *Hæmorrhages*, stinking, ill colour'd and putrid Gleets, flowing down by the *Pudendum*, which by Degrees exhausting the Treasure of Life, and impressing a malign Taint upon the *Nervous Fluid*, the miserable Woman thus daily pining, is at last freed by Death, the End of all our worldly Sorrow.

But I shall not waste your Time in giving farther Directions in these Cases, than you will meet with in my Account of the Disease in general, at the End of my first *Section*, where you will find the same set in a true Light, and tho' I have there given you one Instance of Success, I think it is all I have to boast of; I am sure I can say safely, I never yet met with one seising upon this Part, that would admit of more than *palliating*, by *lenient Injections*, such as the *Succi Plantag. Sedi, Solani, Hyosciam.* or a Decoction *ex Fol. Fragar. Equiset. Lactuca, Portulacæ, Viol.* or the like, with a little *Sal. Prunel.* and *Syr. de Nymphæa*, or the *Mel. Ros. Mucilages* also of the *Sem. Cydon.* in *Aq. Plantag.* or a Solution of *Sacchar. Saturn.* in that of the *Aq. Sperm. Ranar.* a strict Milk-Diet, being pursued in the mean Time, or the *Almond-Milks* and *Emulsions* formerly observed, in our said *Section*: Also *Anodynes, Narcotics* and *Opiates*, are both mixed at sometimes with the Liquors thrown up, especially two or three Ounces of the *Syr. de Meconio* to a Pint of the same: Or a few Grains of the crude *Opium* well dissolved therein, whilst the Dose of either, taken inwardly, is proportion'd to the Exigency of the Pain, and the Custom of long taking them, by which they become so familiaris'd to the Spirits, as to produce little or no Effect, unless their Quantity be enlarged; and thus I have known some of these unhappy People, begin with Half an Ounce

of *Syr. de Meconio*, and come by Degrees to two Ounces: When the dire Complaint increasing, and refusing to give a Truce by these petty *Combatants* in their Behalf, they have had recourse to the *Sacred Anchor of Opium*, and from twenty Drops of its Solution in the *Liquid*, or one Grain of the *Solid Laudanum*, have arrived to an Hundred of the former, and four or five Grains of the latter, in the Circuit of a Night and Day.

### Of the Prolapsus Ani.

The last *Disease* I shall here take Notice of, (over-look'd in the former *Sections*) tho' not peculiar to *Women*, yet in some Measure related to the foregoing, I mean the *Procidentia Uteri*, is the *Prolapsus Ani*, or *Falling-down*, as it is named commonly, of the *Fundament*.

This Part is not only subject to *Fistula's*, of which in our Sixth *Section* you will see an Instance or two; to *Hæmorrhoids*, observed in our Treatise *De Morbis Cutaneis*, among those incident to the Verge of the *Anus*, CHAP. VII. to the *Cancer*, of which also here *Sect. I.* But the *Intestine*, or Gut it self, I mean its lower Extremity, from a Kind of *Paralipsis* or Resolution of its Nervous Fibres, particularly those of the Muscles appointed to support the same, called *Levatores*, as well as the circular Ones of the *Sphincter*, whose Office is to purse it up, after opening to let out the Excrements, suffers so great Relaxation of its rugous internal Coat, after the Manner of the *Vagina*, as to hang out of the Body: To which *Infants* especially, by reason of their soft and tender Habits, are more subject, when a Flux of sharp Humours falling down upon these Parts, puts them upon hard and continual Straining to get rid of: Others  
also



also after long Sickness, being weakened by *Dysenteries* or *Diarrhæas*, terminating in a *Tenesmus*, the acrimonious Humour now falling upon the *Sphincter*, like a *stimulating Suppository*, continually irritates the Fibres, as if something wanted to be discharged, whilst the Patient, in Hopes of easing himself, sits over the Stool straining, till in great Anguish, Fainting, and in cold Sweats, being tired with his fruitless Endeavours, he gets up, perceiving nothing, unless a little Slime or *Mucus*, to come from him, with the End of the Gut thrusting forth from his Body, which it is not but with great Difficulty at sometimes, that he can after reduce, and, being put up again, enjoys but a short Quiet, before, the *Stimulus* returning, his Misery is renewed.

Mr. *Wiseman* has handled the Diseases of the *Anus*, in a Chapter by themselves, such as the *Hæmorrhoids*, or *Piles*, with the several Excrescences about the *Fundament*, viz. the *Fici*, *Thymi*, *Condilomata*, &c. together with the *Fistula* and *Prolapsus Ani*.

But having, as now remark'd, discoursed of the two former in our Treatise above-mention'd, as well as where the same partake of the *Venereal Taint*, in our *Siphylis*: Of the *Fistula*, in this among the *Sinuous Ulcers*; it remains only, that we give you some farther Account of the Cure of this *Procidencia Ani*.

Which is partly *Physical*, and partly *Chyrurgic*: The *First* respecting the *Cause*, the peccant Matter to be carry'd off by lenient and gentle *Cathartics*, afterwards correcting or obtunding the remaining Juices, by those Remedies we call *Absorbents*, the *Chymists Alkalious*, and leisurely constipating the Mouths of the intestinal *Glandules*, to prevent the ouzing forth of the serous Humour, by suitable *Restringents*: Lastly, and without which little good can be obtain'd,

tain'd, for easing the Pain and quieting the Irritation, *Anodynes* or *Opiates*, as the Case requires.

The *Second*, regarding the *Effect*, by as gentle *Styptic* and *discutient Fomentations*, to resolve the Humour fallen down on the *Intestine*, and strengthen the Muscular Fibres, that they may be enabled to retract themselves, and constringing their *Sphincter*, prevent Relapse.

To the same Purpose serves the *Suffitus*, made mention of in the *Prolapsus Uteri*: *Cataplasms* also, as the Case may call for, prepared from those *Decoctions* thicken'd with *Farina*, and sprinkled over with restringent Powders, as the *Pulv. Rosar. rub. Balauft. Cort. Granat. &c.* and instead of *Suppositories*, which, however mild they may be, are still apt to irritate to Expulsion: *Injections Glyster-wise*, but in small Quantity, as the Case stands, either to appease the Pain, sheath the Acrimony of the Humours, and heal the Excoriations; or moderately to exiccate and corrugate the lax Fibres: Of the former Sort are the *Ol. Lini, Hyper. Papav. cum Lacte Vaccin. ac tantillo Theriac. vel Diascord.* also the *Mucilages ex Sem. Malva, Plantag. Papav. Cydon. in Aq. Hord. cum Mel. Rosar.* Of the latter, a strong *Tincture* of Rose-Leaves, *cum Syr. Eorundem Siccorum*; a *Decoction* also of the *agglutinating* and *restringent Simples*, such as the *Rad. Tormentil. Bistort. Fol. Alchymil. Plantag. Equiset. Auricul. Muris Burs. Pastor. &c. cum eodem Melle Ros.*

In the Use of which latter more especially, the following Cautions may be necessary, *viz.* That you by no Means throw up these *Styptic Liquors* where there is great Pain, and the Gut excoriated, or its *Mucus* shaved off by the sharp Humour, before the same is appeased, and the *Ulceration* cicatrised; for this would be as preposterous as the going about

about to *deterge* any other *Ulcer*, before its *Digestion*, or *Cicatrizing* before the same was *mundify'd*; at these Times the *lenifying*, *demulcing Mucilages* and *Oils* being most fitting.

Farther, that the Quantity of your *Chyster*, or *Injection*, exceed not at these Times a Quarter of a Pint, which is usually sufficient: For otherwise, by their Bulk impressing the *Intestines*, they will presently be thrown out again, contrary to the Intention, which is to lodge for some Hours, and, like a *Foetus*, to comfort, assuage the Pain, and take off the *Stimulus*.

To return now to the *Physical Regimen*, which regards the *Cause*, in purging off the offending Matter: The *Cathartics*, best fitted for this Purpose, are the *Rad. Rhei, cum, vel sine torrefactione, prout Fluxus magis vel minus postulat*. The former may be exhibited either *infus'd* or in Substance; the latter in Substance only, made up into a *Bolus* with some *Conserve*, as that of *Roses*, or the *Confect. of Fracastorius*, prepar'd without Honey, *℞s. to 3ss. Fruct. Tamarindi, Mirobal. Citrin.* a Form of which I shall here insert, *viz.*

*℞ Rad. Rhei tenuiter incis. 3j. Tamarind. 3ij. Cort. Mirobal. Citrin. 3ss. Sal. Tart. 3ss.*

*Infunde coram igne paulisper, dein stent simul per noctem in Aq. Cinnamom. Hord. 3iv. & Colatura clara adde Syr. Ros. sol. 3j. pro potione lenitiva, sumenda mane cum levi custodia.*

This is to be repeated, as Occasion requires, once in two or three Days.

The *Absorbents* are the *Corn. Cerv. calcinat.* of which the common *Apossem*, from its Colour call'd the *White Drink*, is prepar'd with a Stick of *Cinnamon* and a Crust of Bread, edulcorated with double



double refin'd Sugar, for their constant Liquor; the *Creta alba* and *Coral. rub.* to which are added others, both *absorbent* and *restringent*, such as *Bolus verus*, *Terra Lemnia*, *Sigillata*, *Japonica*, as among the Compounds, the *Confect. Fracast.* before mention'd, and that *de Hyacintho*, *Milk and Water*, *Rice-Water*, *Claret-Wine*, and *Steel'd-Water*, are also allow'd between whiles.

*Anodynes* and *Opiates*, as the Pain and Frequency of going to Stool shall indicate, are here also to be prescribed.

A *Process* for all which, as the Symptoms vary, for the Benefit of young Practitioners, in the Absence of a *Physician*, or where his Counsel cannot be had, you may collect from what follows.

Having given the lenient Potion above directed, or the *Bolus ex Rheo cum Diascordio*, on the Days intermediate, the *Flux* yet continuing, the following *Absorbent Electuary* and *Apossem* may be directed.

Rx. Conf. Rosar. ʒss. Diascord. f. m. ʒij. Creta alba purif. Coral. rub. pp. ā ʒj. Ter. Japon. ʒss. Syr. de Mecon. q. f. m. f. Electuarius de quo capiat quant. n. m. mane & vespere, superbibendo haustulum calisfactum vel saltem tepesfactum, decocti sequentis cujus bibat ad siliu loco alterius potulenti sitim vel ad libitum.

Rx. C. C. C. ʒij. Nuc. Mosc. contus. ʒss. coquantur in Aq. F. q. f. pro Colatura ʒjss. addendo sub finem Cocci- nel. contus. ʒj. Colatura per cribrum trajecta adde Aq. Cinnamom. Teu. ʒij. Sacchar. albissimi q. f. m. f. Aposema.

In case of Pain, as is frequent in the *Dysenteric Prolapsus* with Gripes and bloody Stools, half a Grain of *Laudamum*, or a Grain must be added to each Morfel of the *Elect.* or the following Draught towards Bed-time, for promoting Rest, the Dose of which, as we formerly observ'd, when discoursing of these Remedies, must be proportion'd to the Sense of Pain, and Frequency of its Returns; having Regard however to the Strength of the *Pulse*, the *Age*, *Sex* and *Constitution*.

*Rx Aq. Flor. Paralyf. ℥j. Epid. Syr. Cydon. ā 3ij. Laud. liquid. Cydon. gutt. xx. m.f. Haustus.*

Forms of *Injections*, Clyster-wise, may be taken from these which follow: As, *first*, if there be great Pain with Ulceration of the *Intestine* attending, or where its *Mucus* is shaved as it were away, by the sharp Humours falling down.

*Rx Caput Ovillum cum lanugine confractum, & exempto cerebro, Rad. Symphit. ℥ij. Sem. Malvæ, Plantag. & Papav. alb. ā 3ij. coquantur in p. aq. Lact. Vaccin. & Aq. F. tb iv. ad consumptionem dimidii & coletur.*

*Rx Hujus Colaturæ ℥iv. Mel. Rosar. ℥j. m.f. instar Enematis, ope Syphonis tubulo proprio adaptato, vel Vesicæ armatæ in Anum injiciend. renovand. bis in Die: Vel,*

*Rx Mucilaginis tenuioris Sem. Cydon. in Aq. Hord. Extr. ℥iv. Mel. Rosar. ℥j. eodem modo utendum.*

When the Pain is somewhat asswaged, and the Ulceration disposed for Healing,

*Rx Plan-*

*R $\acute{e}$  Plantag. cum toto Equiset. ā Mj. Fol. Hyperic. Cynoglos. Pilosel. scabios. Bugul. sanicul. ā Mss. coquantur in Fusculi tenuis ex Capit. Ovil. fact. q. s. ad ℥ij. Colaturā cujus injice eandem Quant. bis in Die, cum Syr. de Rosis siccis ℥i.*

If there be meer Laxity without Pain or Soreness, you may throw up the like Quantity of a strong Infusion of Oak-Bark, Pomegranate-Rind, Balauſtines, or the Tincture of Rose-Leaves, with its Mel or Syrup.

To take off the *Tenesmus* usually attending at these Times; and which indeed by the hard straining occasioned thereby, more than any thing encreases this Disease.

*R $\acute{e}$  Decoct. albi ℥iv. Conf. Fracast. ℥ss. Terebinth. cum Ovi Vitello solut ℥ij. m. pro Enemate: Vel,*

*R $\acute{e}$  Vini Canariens ℥iv. Theriac. And. ℥ss. solve cum Vitello Ovi & f. Enema.*

And Note, That all Injections are to be thrown up only Blood warm, lest by their greater Heat, Pain with Inflammation be stirr'd up; or being quite Cold, Gangrene and Mortification.

In the mean time, Let the Surgeon take Care of the prolapsed *Intestine*, endeavouring to discuss the impacted Humour with hot Stuphs wrung out of a Decoction of the *Folia Malvæ, Verbasci, Flor. Chamomel. Melilot. Summit. Hyperic.* to which, as we have already taken Notice, may be added some gentle *Styptics*, as the *Fol. Rosar.* And after Reduction, the *Emollients* must be wholly omitted, and the *Restringent Decoctions* of the *Cort. Querc. Granat. &c.*

ap-



apply'd close up to the *Anus* with hot Flannels, and there secur'd by the common *Bandage*, in order to purse up the *Sphincter*.

But if the *Intestine* be so relax'd, and withal tumefy'd, as that you can by no Means of lightly pressing from one Side to the other, with your Fingers upon the warm Flannel, reduce it to its Place within the Body; having well fomented the same with the *discurient* and *emollient Fomentation*, to relax the *Induration* and resolve the *Tumour*, you may thicken a Part of the Decoction either with the Crumbs of white Bread, or the *Farina Fabar.* and apply to the prolapsed Gut, first sprinkling over it the *Pulv. Boli - vel Rosar. sicc.* till the Folds thereof softening and giving more Way, you are enabled to accomplish your End. After which it will behove the Patient to be very cautious at his Times of Needing, to moderate his Straining or Pressing downwards, with his Fingers round about the Verge endeavouring to keep up the *Anus*, whilst his Stool is discharging, at least with a hot Flannel wrung out of Red Wine, to be ready at Hand at such Times, pressing gently and wriggling from Side to Side, till finding it passing, by holding his Breath and purring up of his Body, he will both facilitate the Return, and secure the Part from Relapsing, clapping a *Stroph* strongly express'd from the hot Wine, or some other *Styptic* Liquor, close up to the Fundament, and keeping it there for some Time.

Mr. *Wiseman*, I think, proposes a perforated Plate of Tin, of a fit Size, held tight to the *Anus*, at the Time of going to Stool, so that there may be a Conveyance for the same, without suffering the *Intestine* to come down therewith; as also a Couple of small square Pieces of Stick, to be kept there, with the Fingers on each Side at the same Time,

Time, and for the like Purpose: But I never found that either of these Experiments have answer'd, the Gut still, from the Irritation or Force of the *Tenesm* overcoming the Pressure, and slipping down between: So that one great Matter to be observ'd in these Cases, is doubtless, to bring the Body to such a Mediocrity, with regard to his Stools, as that on the one hand he be not too costive, or ty'd up, by which straining over the same, the *Sphincter* would force down; or on the other, being over lax, the Fibres being weaken'd through their Want of due Tensity, will be after less capable of corrugating or shutting up thereof.

HIST. 118. A Girl about 14 Years of Age, had the most formidable *Prolapsus*, of this Kind, I ever met with: It had been down for some Weeks past, coming after a Worm-Fever, attended with a Looseness. The internal Tunick lay out in hard Folds, like the *Præpuce* of a strangled *Glans* under a *Periphimosis*, tumify'd, inflam'd, and strutting out to the Compass over a clenched Fist, discharging a bloody Gleet, with mucous Dejections issuing down between, and tending to *Gangrene*. Before I was call'd, there had been a Pretender to Art to view the same, who had declar'd it *Cancerous* and incurable; which terrifying the Parents, they consulted me, who gave my Opinion, that the Disease was no other than a meer *Prolapsus*, or Falling down of the Fundament; however, through Neglect, now tending to mortify, and the Child's Life in Danger. Desiring my Assistance, I presently scarify'd lightly the discolour'd Parts, applying a Flannel wrung out of Claret, made almost boiling hot; after three or four of which I sent for some *Theriac Lond.* to the next Apothecary's, and laid on the same as hot all over the Part, bringing up the T, and fastening it before to the Belt;

Belt; with a Needle and Thread drawing up the opposite Part of the Strap like a Bag, for receiving the pouting Gut with the Dressings, and securing of the same, providing against the Evening, the following Decoction to be made use of as a Fetus.

*R<sup>x</sup> Summit. Hyperic. Centaur. Min. Malva<sup>a</sup> Mj. Flor. Chamomel. Melilot. Sambuc. a Mjs. coquantur in Aq. F. q. s. ad Colaturæ ℥ij. addendo inter amovendum ab igne Vini rubri ℥ss.*

About a third of the Colature was thicken'd with Bean-Flower, and 'apply'd (after the Part was well fomented) as a *Pultis*, having used this for some Days, the *Tumour* discuss'd, and the *Sloughs* began to loosen, which before the *Cataplasm* was apply'd, I slightly dabb'd with an armed Probe dipp'd in a hot Mixture of *Mel. Ros. & Tinct. Myrrh.* ʒj. of *Mel* to ʒij. of the *Tinct.* and about ʒj. of the *Mel. Unguent. Ægypt.* Yet notwithstanding so great Hardness still possess'd the Folds of the prolapsed *Intestine*, that it was impossible to pass it through the Stricture above; upon which I try'd to soften the same by Bathing as before with warm Flannels, express'd from the *Decoct. ex Rad. Alth. Fol. Verbasc. Branc. Ursinæ Mercurial.* together with *Discutients*, viz. the *Flor. Chamomel. Melilot. Sambuc.* with a small Quantity of the *Fol. Rosar. rub.* to give some light Restringly thereunto, and strengthen the Parts.

These were boil'd in Milk and Water, some Part as before being thicken'd with *Farina*: And thus after the third Day taking off the *Pultis*, and feeling the Parts softer, with a *Stuph* wrung hot as she could suffer it from the *Fetus*, I began to press gently for Fear of hurting the Part, and wriggling it from Side to Side, passing up a little Portion



at a Time, I found it giving way, so that maintaining the Ground I had got, I perswaded the Patient to draw up or contract the *Sphincter* as well as she could, which however by Continuance of Time thus thrust out of its Place, was much weaken'd in its Tone, yet at length slipp'd up at once. Upon which I took a soft Piece of new Flannel, and dissolving a Bit of *Roach Alum* in a little Red Wine, dipp'd the same several times doubled in the Form of a Compress, and pressing out the Wine, directed it close up to the Fundament, with a dry one over, and the Strap of the T coming up before to secure it, giving Orders for its being renewed two or three times in twenty four Hours, and to give Notice to me (if it happen'd seasonably) when she went to Stool, that I might help her upon Occasion.

The next Day I provided the following *Fotus*, for the farther strengthening of the *Sphincter*, and securing its *Relapsus*, to be used as the former, only shifting them as they grew cold, for half an Hour, Night and Morning, and after each Time of her going to the Pot or Stool.

*Rx Cort. Querc. ʒj. Granat. ʒij. Gal. immat ʒj. Flor. Bolaiust. p. i. Alum. ʒss. Infunde super Cineres calidos per xii. horas, in Aq. Chalyb. & Vini rubri austeri à p. æ. q. s. pro Colatura ʒiʒss. quæ reservetur Usui instar Fotus.*

In the mean time, as the *Sphincter* contracted, to correct the bilious and acrid Humours, still apt to flow down with a *Mucus*, I order'd her every Night to take the following *Bolus*, with a Draught of the Hartthorn Drink; to which, and the Chicken or Mutton Broths boil'd with Rice and a Crust of Bread, she was kept through the whole Course.

*Rx Conf.*

*R̄ Conf. Fracast. s. m. ʒss. Pulv. Rhei torrefact. ʒss. Cinnamom. acut. Pulv. gr. v. Syr de Mecon. q. s.*

And after every loose Stool she took two or three Spoonfuls of this Julap with *Absorbents*, shaking up the Glass.

*R̄ Aq. Ceras. nigr. Cinnamom. Hord. ā ʒiv. Sacchar. albi Christal. ʒij. Creta alb. purif. Coral. rub. pp. ā ʒj. m.*

For the like Reason, as the *Diarrhæa* had been of long standing, to prevent any Mischief by the sudden Check thereof, the following lenient Poti-  
on was given once in four or five Days, for as many times, which manifestly strengthens the intestinal Fibres, as at the same Instant it gently empties the peccant Matter, and is in all these Kinds of Fluxes, whether *Lienteric*, *Dysenteric*, or the common *Looseness* very profitable.

*R̄ Rad Rhei tenuiter incis. ʒj. Tamarind ʒij. Cort. Mirobal. Citrin. Cinnamom. acut. confract. ā ʒss. Sem. Plantag. p. j. Infunde calide in Aq. Lact Alex. ʒiij. Colaturæ claræ adde Aq. Epid. ʒij. Syr. Ros. solut. ʒj. & f. Potio.*

By this *Regimen* she gradually recover'd, tho' I was several times sent for after her Needings, to put up the *Intestine*, which was now accomplish'd with little Trouble, and at last would go up again of it self.

She thought she received great Comfort also by sitting over the following *Suffitus* every Night for a Quarter of an Hour, the Powder being sprinkled on a Chafing-Dish of Coals put into the Case of a Close-Stool.

R<sup>x</sup> *Mastich. Thuris* ā 3jss. *Cort. Granat.* 3j. *Nuc. Moschat.* 3fs. m. f. *Pulvis in tribus Chartulis.*

To take off the *Tenesmus* or Provocation, so soon as the Gut was reduced, they threw up every Night half a Dozen Spoonfuls of Canary, with a quarter of an Ounce of *Conf. Fracast.* and the Yolk of an Egg. After this she enter'd upon a Milk Diet with *absorbent* Powders, and was freed from her *Hætic* Fever, by which her Life for some Months past, seemed to be in very apparent Danger.

When this *Prolapsus* befalls young Infants, the Case is yet more troublesome, for that instead of helping themselves by moderating the straining, they force out the Part still more violently through the *Irritation*, and thereby sometimes oppose all Endeavours for the Reduction, till the same is appeased by proper *Fomentations*, apply'd as above directed, or being tired out with the unnatural *Conatus*, are forced to give over, and the Surgeon taking his Opportunity succeeds better in the Attempt, by the Method above directed, preventing a Relapse, unless, as at sometimes, *Nature* being quite spent through the Flux attending, the prolapsed Gut is affected with a *Gangrene*, and the Patient carry'd off thereby.

And thus, Gentlemen, I shall put an End to these *Chirurgical Discourses*, in which if I have been less accurate in the laying down my *Definitions*, *Diagnostic* or *Prognostic* Signs, as well as Method of Cure, than some of my *Predecessors*; yet, if in the whole I have given such Hints as may serve to constitute a *general Idea* of our *Art*, it is all that I propos'd to my self, or indeed promis'd you at my first Setting out,





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OR,

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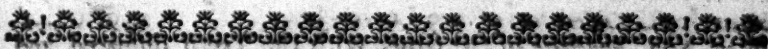
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# TABULA ÆTIOLOGICA:

*Giving an Account of some hard Words contained in the foregoing Sections, with their Derivations both from the Greek and Latin; for the Benefit of such who are less conversant or acquainted with those Languages, here explain'd, and Alphabetically digested.*

## A.

 *Abdomen*, the Belly, or, as called by Anatomists, the lower Belly, to distinguish it from that above, which they name the middle Venter:

It is so term'd according to some, *ex abdo*, signifying to hide, for that the Intestines and other Bowels, lie as it were hid or conceal'd therein: Its Forepart is divided into the upper Region, named *Epigastrium*, *ex ἐπὶ, super*, & *γαστήρ, ventriculus*, as lying over the Stomach; the Middle, *Umbilicalis*, as comprehending the Navel; and the Lower, *Hypogastrica*, *ex ὑποδ, sub*, & *γαστήρ*, as before; the Sides called *Hypochondria*, in the superiour Parts, *ex ὑποδ, sub*, & *χόνδρεος, cartilago*; the inferiour, *Ilia*, the Flanks, near adjoining to the Bones of the same Name.

*Aberration*, *ex aberro*, to wander out of the Way; here meant of Nature's sometimes deviating from her usual Proceedings.

*Ab lactation*, *ex ab & lacte*, the taking a Child from Sucking, or, as it is termed generally, *Weaning* it from the Breast.

*Abscessus*, *ex abscedo*, to depart; a Gathering of Matter in a Part; so named because hereby those which were before close joined, are forced upon a Separation; the lower as it were retiring from the upper, to make room for the said Matter. See *Apostema*.

*Absorbent*, Medicines so denominated from their Power of imbibing the sharp Particles, and tempering the four Juices of the Blood, derived, *ex absorbeo*, to swallow or drink up. See *Alkaline*.

*Acetabulum*, the Cavity or Hole in the *Coxendix* or Hip-Bone, receiving

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ving the Head of the Thigh by that Articulation (and indeed the principal Instance thereof) called *Euarthrosis*; which see also in its Place: It is called also of some the *Cup*, and seems to derive its Name from its Likeness to an antient Sawcer, in which they brought Vinegar to the Table, thence named *Acetabula*, ex *Aceto in iisdem contento*; as our Salt-sellers, *Salina*, ex *Sale illa implendo*. See *Pyxis*.

*Acromium*, ex ἀκρῶ, *summus*, & ὤμῳ, *humerus*, the upper Part or Top of the Shoulder.

*Acute*, a Disease that terminates suddenly, opposite to *Chronic*, borrow'd from *acuo*, to quicken or sharpen.

*Adnascent*, sticking or adhering close, ex *adnascor*, to grow to, or close upon.

*Adustion*, scorched as it were by violent Heat, or burnt, ex *aduro*, to burn or parch; figuratively here spoken of the *Bile* or *Choler*.

*Egyptiacum*, an Ointment so called, prepared of *Verdigreese*, *Honey* and *Vinegar*, having its Name from *Egypt*, if we may credit the first Compilers of our *Dispensatory*.

*Egylops*, a Disease of the Eye, or rather its inward Corner; in Greek αἰγίλωψ, ex αἶξ, *capræ*, & ὤψ, *oculus*, or *Goats-Eye*; from its Likeness, or, as others, for that this Creature is prone to this Disease. Of which see more in *Anchylops*.

*Æther*, αἰθήρ, ἀπὸ τοῦ αἰεὶ δεῖν, à *semper currendo*, quòd, *curfibus rapidis continuò rotatur*; vel ab αἰδῶ, *ardeo*, *splendo*, to appear bright and resplendent; the Sky or Firmament: But meant with us of the *Cartesian* Wonder-working Element, which enters and fills up the Pores of all Bodies whatever, and which he calls his *Globuli atherei; seu primi generis Elementa*.

*Ætiology*, ex αἰτία, *causa*, & λόγῳ; *ratio*; the Reason of a thing, or why it is so denominated.

*Aggested*, ex ἄγγω, to pile up into one; any thing heaped up; here meant particularly of certain Humours in the Parts.

*Agglutivative*, sticking or joining close, ex *agglutino*, to cement or glue together; imply'd of Wounds, whose Lips, by the Assistance of such Medicines, are so united.

*Albuginea*, the inner proper Coat of the *Testis* or Stone; so termed from its white and transparent Colour.

*Alexipharmic*, ab ἀλέξω, *arceo*, & φάρμακον, *venenum*; a Counter-Poison of any Kind, relating chiefly to Remedies in malignant Fevers.

*Alexiterium*, ab ἀλέξω & τηρέω, *conservo*, a Preservative from Contagion.

*Alkali*, derived originally from the Egyptian *Kali*; with us, but especially the *Chymists*, who make a filthy Clutter about the same, it stands for the *fixed Salts* of Plants drawn therefrom, first burnt to Ashes, then made into a *Lixivium*; but is now generally understood of all other Remedies, fitted by their Texture, to break, blunt, or sheath the *Spicula* or Points of Acids.

*Alimentary*, any thing affording Nourishment to the Parts of our Bodies; ab *Alimentum*, Food or Repast.

*Alveolus*, quasi *alvus parvus*, a little Trough, or other Hollow: Among Anatomists are imply'd hereby those by Nature formed in the Jaw-bones, to receive the Fangs of the Teeth, called otherwise their *Sockers*.

*Amaurosis*, ab αμαυρόω, *obscurio*; a Disease of the Eye, or rather the Optic Nerve, called also *Gutta serena*; in which the Patient is quite dark, through some Matter in the Nerve, which intercepts the Rays passing



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passing to the *Sensory*, at the same Time nothing being discoverable outwardly, unless that upon strict Enquiry, when the *Pupilla* is found more dilated than the other, the *Uvea*, at least its Ligament, called *Ciliare*, having lost its Spring or Power of Contraction.

*Ambustion*, ex *amburo*, vel ex ad & *uro*, aliis *am* & *uro*, & *b* interposito, fit *amburo*, a Burning or Scalding.

*Analysis*, ab ἀναλύω, *resolvo*, the reducing by *Chymistry* any Matter into its primary Constituent, or compounding Parts.

*Analogy*, ab ἀναλογίζομαι, *comparo*, a likening in general of one thing with another.

*Anasarca*, ex ἀνά, *per*, & σάρξ, *caro*, a watery Swelling, from a ferous Humour shed between the Skin and Flesh.

*Anatomy*, ab ἀνά, *per*, & τέμνω, *feco*, vel ab ἀνατέμνω, *disseco*, an artificial Dissection of dead Bodies, for the Benefit of the living, discovering thereby the Nature, Office, and Use of each Part, with the Diseases discover'd upon them, not otherwise rightly to be found out.

*Anchylops*, ab ἀγκύλη, *hamus*, *stridura*, the same with *Ægylops*, according to some; tho' others, as *Blancard*, distinguisheth them thus, *viz.* that before the Swelling breaks, it is called *Anchylops*; and after, *Ægylops*; when, if the Bone of the Nose adjoining be concern'd, it makes the *Fistula lachrymalis*.

*Anchylosis*, ab ἀγκύλη, vel ἀγκυλώμα, *i.e.* *Contractione Articulorum laboro*; signifying such Contraction and Stiffness of the Joints, as if there were no Articulation, at least intended for Motion of the same.

*Ancyroides*, a Process of the *Scapula*, so named ab ἀγκυρα, *anchora*, ῥύχθ, *rostrum*, & ἔσθ, *forma*.

*Aneurisma*, ab ἀνέρπει, *dilatō*, implying either a Rupture in the Coats of an Artery, whence the Blood is thrown out into the Interstices of the Muscles, or an Enlargement thereof by Dilatation.

*Angina*, ab angendi, seu constringendis faucibus, as some; or, as others, ab ἀγγειν, *strangulare*; the *Quinsy*, a Disease of the Throat, or more properly an Inflammation of the Muscles of the Windpipe, particularly those called *Aretanoides*, and *Thyreoretanoides*; whose Office it is to straiten the Pipe, and by which thus distemper'd, the Air is at sometimes so entirely precluded, that unless Incision be made on the Outside, betwixt the Rings, to give a Passage thereunto, the Patient is presently strangled, as if a Ligature had been tied round his Neck.

*Angiotomist*, ab ἀγγειον, *vas*, & τέμνω, *feco*; a Person skill'd in the Course of the Blood-Vessels, or who can readily dissect them.

*Anhelous*, ex *anhelo*, to breathe with Difficulty; of which there are divers Kinds, as the *Asthma*, *Dyspnœa*, *Orthopnœa*: Which you will find in their Places.

*Anhelitus*, Idem quod *Anhelous*.

*Anima Mundi*, the Soul of the World; another universal *Ubiquitarian* Principle, suppos'd by *Plato* to do the same Feats as *Cartes's Æther*, pervading and influencing all Parts and Places.

*Animalcule*, a Dimin. ab *Animal*, or a living Creature so exceedingly minute or small, as to escape the naked Sight, and discoverable only by the Help of Glasses: These are by some now-a-Days, deemed not only the Original of our selves, but our Diseases also.

*Anodyne*, ex α *Particula Privativa*, & ὁδύνα, *dolco*, to be void of Pain: Hence all such Remedies are

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intended to give Ease, or mitigate the same, are so denominated.

*Antagonist*, ex ἀντί, *contra*, & ἀγανίζω, *appono*, one acting in Opposition to another; in this Place referring to the Muscles, as where one lifts up the Part, and another depresseth or pulls down the same.

*Anthrax*, Gr. ἀνθράξ, i. e. *carbo*, a burning Coal; a Plague-Swelling, or Sore of that Name, from its burning Nature so call'd: The same with *Carbunculus*, which see.

*Antidote*, ἀντίδοτον, ex ἀντί *contra*, & δίδωμι, *do*, any Sort of Counter-Poison; the same with *Alexipharmic*.

*Apparatus*, from *appareo*, to appear, or be ready at hand; a Provision of all Things necessary, or which may be wanting in the performing some Operation.

*Appendix*, ex *appendo*, to hang by, or to, any Thing adjoining to another; among the *Surgeons* the Elongation, or bearing at the End of a Bone: See *Apophysis*, and *Epiphysis*.

*Appendage*, the same with *Appendix*.

*Aphonia*, ex α, *part. priv.* & φωνή, *vox*; one who has lost his Voice, or is become Speechless.

*Aphorism*, ab ἀφορίζω, *determino*, a principal or general Rule of some Art, taken as it were for granted, as founded upon Authority, such as those of *Hippocrates*.

*Aponeurosis*, ex ἀπὸ, *de*, & νεῦρον, *nervus*, any Nervous Expansion.

*Apophysis*, ex ἀποφύω, *produco*; the bearing out at the Extremity of a Bone, still continuous with the same: See *Epiphysis*.

*Apoplexia*, ab ἀποπλήττω, *percutio*; a sudden Deprivation, as well of Sense as Motion, Respiration sometimes however remaining.

*Apostema*, ex ἀποσίνημι, *sejuncto*; the same with *Abscessus*.

*Apothegm*, a *Maxim*, *Axiom*, or *Proposition*; a standing Rule.

*Aq. Chal.* *Aqua Chalybiata*, steeld Water; or, in which hot Iron has been often quenched.

*Aq. Fabr.* *Aqua Fabrorum*, the same; called otherwise the *Smith's Forge Water*.

*Arcaus*, the Author of the *Unguent.* ex Gum. *Elemi*, called otherwise *Linimentum Arcai*, who wrote a Treatise of *Wounds*, in which he wonderfully, [and deservedly too] extols the same.

*Archans*, ab ἀρχή, *principium*, a Sort of *Primum Mobile*, *Semi-Deity*, or *Vice-God*, set up by *Helmont*, to super-intend the Animal Fabric, or *Oeconomy* thereof; and to direct every thing in the best Manner for Conservation thereof; of kin to *Plato's Anima Mundi*.

*Aretanoides*, ab ἀρέτω, *haurio*, ἀνοίγω, *aperio*, & ἔσθω, *forma*; the Name both of a Cartilage as well as Muscle of the *Aspera Arteria*, or Wind-Pipe, serving upon Occasion to constrict the same, and modulate the Voice.

*Arteriotomy*, ex ἀρτηρία, *arteria*, & τέμνω, *seco*; the artificial Opening of that Vessel, like what is practised in *Phlebotomy* or *Venasection*.

*Arthritica*, ab ἀρθρον, *articulus*, sic dict. quod ad τὰ ἀρθρα, *in articulos infestet morbus*, Remedies for the *Gout*.

*Arthrodia*, ab ἀρθρον, *articulus*, & δέχομαι, *recipio*; one of the Species of *Articulation*, or joining of the Bones under the *Diarthrosis*, or that for manifest Motion; which is, when a small flattish Head is received into a proportionate Cup or Cavity, as the *Humerus*, or Shoulder-Bone, with the *Scapula*, or Shoulder-Blade.

*Astatio*, roasted, ab *asso*, to roast at the Fire; here used of the *bilious Juice* metaphorically, as in *Austion*.

*Ascitor*,

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*Ascites*, ab ἀσκής, *uter*, a Dropfy of the Belly; so called for its being hereby distended like unto a great Bottle.

*Assimulate*, ex *ad*, & *similis*, to be made like unto, or of the same Substance, or changed thereinto; as the Particles of the *Chylous* Juice into Blood, and those of the Nutritious into the Substance of those Parts, for whose Nourishment and Growth they are destin'd and appropriate.

*Asthma*, Gr. ἀσθμα, ab ἀσ, *spiro*, Shortness of Breath: See *Anhelous*.

*Astragalus*, ἀστέργαλλος, id. qd. *talus*, the first Bone of the Foot; called in Men the Ankle-Bone, in Brutes the *Pastern*; and so named for its being used in antient Sports, or something of that Shape called *Cockal*, in like manner with our *Dice*, going by the same Name.

*Ataxy*, ex *a*, part. priv. & τάωω, *ordino*, some particular Irregularity or Disorder.

*Atheroma*, ab ἀθήρα, genus *pultis*, sic dict. one of the *encysted Tumours*, termed so from its Pultis-like Contents: See *Steatoma*, and *Meliceris*.

*Atmosphere*, the whole Region of the Air round about us.

*Athletic*, ab ἀθλέω, *certo*, to contend in Wrestling; implying the same with a robust or strong Constitution; one fit for that Exercise.

*Atlas*, the first Vertebra of the Neck, ab ἀτλάω, *sustineo*, to support or uphold, the Head being hereon supported.

*Atrabilis*, or a Degeneracy of the *Bile* into what the Antients called *Black-Choler*.

*Atrophy*, ex *a*, priv. & τρέφω, *nutrio*, the Falling away of the Flesh, as in a *Consumption*, through an *Ataxy*, or other Defect supposed in the Nerves.

*Autopsy*, ex αὐτός, *ipse*, & ὥψις,

*visus*, an Eye-witness, or the Evidence of Sight.

B.

**B** *Afilicon*, ex βασιλῆω, *rego*, an Ointment bearing that *Epithet*, from its supposed *Royal* or *Kingly* Vertues.

*Bilisatra*: See *Atrabilis*.

*Bregma*, id. qd. *Sinciput*, the fore Part of the Head, à βρέχω, *riego*, *humecto*, the same being kept moist, or bedew'd by the Brain underneath: There are two of them, a Right and Left.

*Bronchocele*, a Swelling on the Wind-Pipe, or *Bronchus*; so denominated, à βρόγχος, *bronchus*, & κήλη, *ramix*.

*Bronchotomy*, à βρόγχος, & τέμνω, *feco*, a Division made between, the Rings of the Wind-Pipe, in the Operation so called, for the *Angina*, or *Quinsey*.

*Bubo*, a Swelling in the Glands of the Groin, taking its Name ex βεβών, *inguen*.

*Buphthalmus*, a distemper'd Eye, ex βῦς, *bos*, & ὀφθαλμός, *oculus*, from its vast Largeness, called *Ox-Eye*.

C.

**C** *Achexia*, ex κακός, *malus*, & ἔξις, *habitus*, an ill Habit of Body.

*Cacochymia*, ex κακός, *malus*, *pravus*, & χυμός, *succus*, the same arising from some depraved Juices in the Blood.

*Cacoethic*, an Ulcer so named, ex κακόν, *malum*, & ἥθτος, *mos*, or of a stubborn Disposition.

*Camarosis*, à καμνέω, *testudo*, a Fracture of the Skull, like an Arch of a Vault, fortassis a figura testudinis antiquorum; or from a Buckler held over,



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over the Head, to defend that Part from the Arrows of the Enemy.

*Cancer*, the most dreadful of all Diseases, from the knotty and livid Veins, like the Feet of a *Crab* surrounding its hard Body, so called; or, as others, for that this Creature being of such like Complexion, and holding fast what it taketh within its Claws, so likewise this Tumour, of the same Aspect, bindeth in like manner the Parts it possesseth.

*Capsula*, a Dim. from *capsa*, signifying a little Bag or Case; but in our Sense, one that is made up of the broken Membranes, formed by *Nature*, to enclose or lodge some extravasated Juice, or other Matter contained in those Tumours we call *incysted*, the same with *Cystis*.

*Carbunculus*, ex *carbo*, the same with *Anthrax*, derived by some from a precious Stone of the same Name, of like Colour, viz. that of a Fire-Coal.

*Carcinoma*, ex *καρκίνος*, *cancer*, & *πέμω*, *depasco*, the same with *Cancer*; unless that some will have the occult or hidden one go by this Name, others, that which is ulcerate.

*Cardiaca*, à *καρδία*, *cor*, any Remedy called *Cordial*, or which is intended to refresh the Spirits.

*Cardialgia*, ex *καρδία*, & *ἀλγέω*, *doleo*, Pain at the Stomach, or by Consent therewith from the Nerves, called the Pain at the Heart; the same with *Cardiogmos*, à *καρδία*, & *ὀδύνω*, *doleo*.

*Cariofity*, à *caries*, signifying Rotteness in a Bone, like that of Wood eaten into by a small Worm: See *Teredo*.

*Carminative*, Medicines to expel or discuss Flatulencies, or Wind, either in the Stomach or Intestines.

*Carnify'd*, (see *Incarnation*) turned into Flesh, ex *caro*, & *fit*.

*Catagmatica*, à *κατάγω*, *deduco*,

Remedies proper to cement the broken Extremities of a Bone, or to promote a *Callus*.

*Catamenia*, Gr. *καταμηνία*, ex *κατά*, *infra*, & *μην*, *mensis*, the menstrual Purgation of Women.

*Cataplasma*, à *καταπλασάω*, *illino*, to spread like a Plaister, a Pultis-like Form of Medicine.

*Cataracta*, à *καταρρέσω*, *confundo*, a Disease of the Eye, stiled a *Cataract*, in which a Film, or Skin growing before the *Pupilla*, like a Curtain drawn against a Hole letting the Light into a Room, hinders the Passage of the same, till it is depressed by the Needle, as in *Couching*.

*Cathartic*, à *καθαίρω*, *purgo*, *mundo*, a purging Medicine.

*Catheratica*, ex *καθαίρω*, *dejicio*, to throw down; Remedies fitted to keep under and subdue a *Fungous*, *spongy*, or, as it is call'd by the common People, *proud* Flesh.

*Catherer*, à *καθίημι*, *immitto*, an Instrument of that Name, used to be passed into the Bladder for exploring the Stone, and to draw out the Water in an *Ischury*, or Stoppage thereof.

*Cautistica*, à *καίω*, *uro*, to burn; from their fiery and consuming Property, being the strongest of the three: See *Catheratic*, and *Septic*.

*Cephalic*, ex *κεφαλή*, *caput*, Remedies for the Head and Brain.

*Cerebellum*, quasi *cerebrum parvum*, that Part of the Brain lying as an Appendage to the rest, on the Backside of the Skull, called *Occiput*.

*Chalybiat*, any Remedy prepar'd with Steel.

*Chlorosis*, à *χλωρίω*, *viridis sum*, the Disease of Virgins, called the *Green-Sickness*.

*Cholagogue*, à *χολή*, *bilis*, & *ἀγω*, *duco*, a Medicine to purge *Choler*.

*Chronic*, à *χρόνιος*, *tempus*, a Disorder

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order of long standing, opposite to acute.

*Chrysaline*, a Tumour on the *Prepuce*, white, shining and transparent, like unto *Chrysal*; whence the Name.

*Chyrurgery*, ex χειρ, *manus*, & ἔργον, *opus*, in general any manual Operation; but with us particularly those relating to that Art, or which are practis'd by the Surgeon's Hand.

*Cicatrix*, à cicatrigo, to skin over, or heal up a Sore, the Scar left after such Healing.

*Cineritious*, the outer Part of the Brain; called also the *cortical*, from its Colour like Ashes, in Latine *cineres*.

*Circocoele*, ex κισσός, *varix*, & κήλη, a varicous Swelling of the *Spermatic Vessels*: See *Varix*, & *Varicocele*.

*Circumgyration*, a turning the Limb round about in its Socket, or Cavity, ex *circum*, ac *gyro*.

*Circumrotation*, the same Action, ex *circumroto*, to turn round about as a Wheel.

*Coarctate*, à coarctō, to press close or straiten.

*Clavicula*, à clavis, a little Key, the Collar-Bone, from its Likeness in old Times thereunto.

*Clyster*, à χλύζω, *abluo*, from its Property of washing as it were, the Inside of the Guts, where, by way of Injection, it is thrown up.

*Colliquation*, a dissolving or wasting of the Parts, ex *colliquo*, to melt away.

*Collyrium*, ex χαλάνω, *inhibeo*, & ῥέω, *fluxio*, a Sort of Wash for the Eye, so called from its Power of diverting the Rheum thence; vel ex *colluo*, to wash, because thereby these Parts are cleaned.

*Coma*, κῶμα, *somnus profundus*, a Disease attended with profound Sleep; but of which there are two

Sorts, distinguish'd by the Names of *Somnolentum*, ac *Vigil*. See *Sopor*.

*Combustion*, ex *con*, & *uro*: The same with *Ambustion*.

*Comminution*, ex *comminuo*, to break or shiver to Pieces; meant here of the Bones so splinter'd by a Fracture.

*Compages*, ex *compingo*, to join together; a Frame of any Sort artificially put together; but with us the Animal Structure, in Whole or Part.

*Concussion*, ex *concutio*, to shake; a Jolt or Shock of the Brain, by Blows or Falls from on high.

*Condiment*, a *condio*, to season, pickle, or powder, a Composition to preserve dead Flesh from Putrefaction. See *Embammata*.

*Condylus*, the flattish Process or Head of the lower Jaw, entering the *Sinus* of the *Os Petrosum*, from its Likeness to the Knuckle or Finger bent (called by the same Name) so denominated.

*Congeries*, à *congero*, to gather into a Heap or Bundle.

*Congestion*, from the same; but with us importing a Swelling gradually rising, and taking some Time before it comes to ripen, in Contradistinction to that by *Fluxion*, and which quickly terminates.

*Conglobate*, ex *conглоbo*, to gather singly into a round Ball; a *Gland* of that Name and Figure, to difference it from the following.

*Conglomerate*, ex *conglomerō*, to wind up in a Cluster; several small Glands envelop'd in one common *Capsula* or Cover, lying close adjoining to each other.

*Contagion*, à *contingendo*, quia quem tetigerit polluit: The same with *Infection*.

*Contaminate*, ex *contamino*, to pollute or defile.

*Contrafissura*, a Crack or Fissure in the Skull, in a Part opposite to that where



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where the Stroke or Blow was given. See *Resonitus*.

*Contusion*, à *contundo*, to bruise.

*Convulsion*, à *convello*, to pull or hawl together. See *Spasmodic*.

*Coracoides*, a Process of the Scapula, so term'd ex *κόραξ*, *corvus*, & εἶδος, *forma*, from its Likeness to a Crow's Beak.

*Cordialia*. See *Cardiaca*.

*Cortical*, the Outside of the Brain, the same with *Cimeritious*; called otherwise its Bark or *Cortex*.

*Craſis*, à *κεράυνυμι*, *misceo*; the same with *mixtura*; the Temper of the Blood peculiar to every Constitution.

*Cremaster*, à *κρεμάω*, *suspendo*, a Pair of Muscles so named from their suspending the Testicles and Spermatick Vessels in the *Scrotum*.

*Cretaceous*, of a Chalk-like Substance, from *creta*, signifying Chalk, such as is found in the *Internodes* of some gouty Persons.

*Crisis*, à *κρίνω*, *judico*, the Termination of a Disease either by Death or Recovery.

*Crotaphites*, ex *κρόταφ*, *tempus*, si non à *κρόσω*, *pulso*; the same with *Temporalis*, or the Temporal Muscle.

*Cruor*, Blood extravasate and congealed, à *κρύω*, *frigus*.

*Cutaneous*, ex *cutis*, belonging to the Skin, or Skin-deep only.

*Cuticula*, a Dim. from *cutis*, the Scarf-Skin, from its Thinness so denominated, or the upper fine Covering of the *cutis*.

*Cuneiform*, ex *cuneus*, a Wedge; there are three Bones of the *Tarsus*, which have this Name given them, from such Likeness.

*Cylindrical*, from the round, long and slender Form, like that of the Cylinder; a Term frequently bestowed upon the Tendons of some particular Muscles.

*Cymbiform*, another of the Bones of the same Joint, from its Likeness to a Boat, in Latin *cymba*. Also *Naviculare*, a little Ship or Boat.

*Cystis*: The same with *Capsula*.

D.

**D***Artus*, Gr. *σάρτις*, à *σῆμα*, *corium*, *pellis*; the second common Coat inclosing the *Testis*, together with the outer Skin making up the Bag or Cod containing the same.

*Decade*, ex *δέκα*, *decem*, *Ten*, any thing composed exactly of that Number; here imply'd of the Sections a-foregoing.

*Deleterious*, à *δινάω*, *noceo*; something poisonous or hurtful.

*Deliquium*, ex *delinquo*, to swoon; a fainting away; of *Kin* to *Syncope*, and *Lypothymy*.

*Delirium*, ex *deliro*, to rave or talk idly; or, as others, the Dreams of a Person awake; one that is light-headed, in the common Phrase or Mode of speaking.

*Deltoides*, à *Figura Δ*, & εἶδος, *forma*; one of the Muscles lifting up the Arm, from such Figure so denominated,

*Derivation*, a carrying or diverting the Course of the Humours from their present Tendency, by some Passages near adjoining, (See *Revulsion*.) ex *derivo*, to derive.

*Despumation*, ex *despumo*, to scum away the Froth, to clarify; with us it refers to the Blood, by some Means thrown as it were into intestine Commotion, and after purify'd or cleansed, by throwing forth what was offensive.

*Desquamation*, à *desquamo*, to scale Fish; and by *Metaphor* apply'd to a foul Bone; the outer or Cortical Part whereof riseth in like manner, and



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and is thrown off like a Scale. See *Exfoliation*.

*Deterfion*, à *detergo*, to wipe or scower; the Cleansing away the Filth of a Wound or Ulcer, being the second *Gradus* or Step to Healing, subsequent to that of their *Digestion*, or bringing to Matter.

*Diagnostic*, ex *δια*, per, & *γινώσκω*, *cognosco*, the Signs by which we know a Disease present. See *Prognostic*.

*Diaphanous*, à *διαφάνω*, *pelluceo*, to shine through; any thing which is transparent.

*Diaphoresis*, ex *δια*, per, & *φέρω*, *fero*; sensible Perspiration through the Pores: The same with Sweat.

*Diaphoretica*, Idem. Medicines promoting such Perspiration.

*Diarrhea*, à *διαρρέω*, *perfluo*, to run through; a Looseness, or Flux of the Bowels.

*Diary*, à *Die*, Gr. *ἡμερηίως*, a Day-Book, or Journal; an Account taken daily of what occurs.

*Diarthrosis*, ex *δια*, per, & *ἄρθρον*, *articulus*; that Articulation of the Bones intended for manifest Motion, of which the three Subdivisions are, *Enarthrosis*, *Arthrodia*, and *Ginglimus*; to be found in their proper Places.

*Diafole*, ex *δια*, per, & *έλλω*, *mitto*; the Dilatation of the Coats of an Artery, opposite to its *Systole*.

*Diathefis*, à *διατίθημι*, *dispono*; the Nature, Frame, or Disposition of the Body.

*Digastric*, ex *δίς*, *bis*, & *γαστήρ*, *ventriculus*, double belly'd; one of the Muscles depressing or drawing down the lower Jaw.

*Digestion*, à *digero*, the same with *Concoction*, whether of the Food in the Stomach, before the same is changed into Blood; or of the Contents of some Apostem, turning into Matter.

*Diploë*, à *διπλόω*, *duplico*; the *Medullium*, or Medullary Interspace between the two Tables (as they are called) of the Skull.

*Discurentia*, ex *discutio*, to dissipate or dissolve; Remedies suited to that Intention.

*Disjunction*, à *disjungo*, to sever or part what before was join'd close together.

*Dislocation*, à *disloco*, to put out of Place; meaning here particularly the Heads of the Bones, or those making up the Joints.

*Diuretica*, ex *δια*, per *ῥέω*, *urina*, & *ῥέω*, *fluo*; Medicines that promote Urine.

*Dura Mater*, the outer Covering of the Brain, next under the *Cranium*; called otherwise *Crassa Meninx*, to distinguish it from the *Meninx tenuis*, or that immediately surrounding the Substance thereof: They are called *Meninges*, that is, *Matres*, from their being at least the imagin'd Source or Foundation of all other the Nervous and Membranous Expansions throughout the Body.

*Dyscrasy*, ex *δύς*, *difficile*, & *κρίσις*, *mixco*, *tempero*; the evil Disposition of the Blood and its Juices.

*Dysenteria*, ex *δύς*, *έντερον*, *Intestinum*, & *ῥέω*, *fluo*, a *Dysentery* or bloody Flux, attended with Pain and Gripping of the Bowels.

*Dysepulorica*, ex *δύς*, *difficile*, *ἐπι*, *super*, & *ἑλκος*, *integer*; any Sore or Ulcer that is difficult of healing or skinning over.

*Dyspnœa*, ex *δύς*, & *πνέω*, *spiro*, a Difficulty of Breathing: Of which see *Anhelitus*.

## E.

**E** *Chymosis*, ab *ἐκχύω*, *effundo*, & *αἷμα*, *sanguis*; any Extravasation of Blood upon the Parts, from Bruise

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Bruiſe or otherways, making Black and Blue Marks upon the Skin; the ſame with *Sugillation*.

*Ectipſima*, ab ἐκτιπέζω, *exprimo*; here taken for a Fracture of the *Cranium*, where the Bone is beat in, and preſſeth on the *Dura Mater*.

*Efferveſcence*, ab *efferveſco*, to boil up with Heat; with us a Commotion in the Blood, from ſomewhat foreign intermix'd therewith, and like a Ferment ſtirring up the ſame.

*Effate*, ab *ex*, & *fœtus*, ſignifying barren, or childleſs; but figuratively taken for any thing that hath loſt its *Vertue*, or is decay'd.

*Effloreſcens*, ab *effloreſco*, to blow as it were, or appear in *bloom*, of Colour like a *Flower*; here taken for thoſe Fluſhings or red Appearances ſometime ſuddenly thrown out of the Blood, of the like Complexion, on the Surface of the *Cutis*, either in diſtinct Spots, called a *Raſh* or *Marbling*, alſo in the *Meaſles*, or univerſally, as in ſome *Surfeits*, and in the *Scarlet Fever*.

*Elaſtic*, ab ἐλαύνω, *agito*, *expando*, any thing ſpringy, or capable of ſudden Dilatation.

*Elephantiaſis*, ſic dict. quia corporis ſuperficiem maculis & tumoribus ſimilem faciat *Elephantis cuti*, according to ſome; or, as others, ob morbi magnitudinem, the *Leproſy*, making the Skin look rough like that Creature: Others term it a Diſeaſe principally of the Feet, occaſioning them to appear like thoſe in the *Elephant*: Concerning which Diſtemper you may conſult our Treatiſe de *Morbis cutaneis*, Part. I. Chap. 1.

*Elevator*, ab *elevator*, to be liſted or heaved up, ſeveral of the Muſcles from that Office going by this Name, as the *Elevator Palpebrae*, *Humeri*, &c. but it is here meant of an Inſtrument uſed after *Trepanning*, to raiſe up the depreſs'd *Cranium*: It is

called otherwiſe *Levator*, from *levo*, to relieve, becauſe hereby the Parts underneath oppreſs'd, are freed from their Diſturbance.

*Elitroides*, vel *Elytroides*, ab ἐλδοθρον, *vagina*, & ἑλδοθρον, *forma*, the fiſt of the proper Coats of the *Teſtis*, called *Vaginalis*, from incloſing the ſame, as in a *Vagina*, or *Sheath*.

*Embammata*, ab ἐμ, *in*, & βάπτω, *immergo*, any kind of Sauce or Pickle, like the Condiment before obſerved; taken here for thoſe Gummy and Spicy Compoſitions, uſed for embalming dead Bodies.

*Embrocation*, ab ἐμβρέχω, *imingo*, any Liniment, Oil, or Ointment, with which the Parts are bathed.

*Emetic*, ab ἐμέω, *vomo*, Medicines to excite Vomitting.

*Emmenagogue*, ex ἐμ, *in*, μὲν, *menſis*, & ἄγω, *duco*, ſuch as are proper to promote the Monthly Viſits of Women.

*Emphyſema*, ab ἐμφυσάω, *inſſo*, a Swelling from Wind, called a flatulent Tumour.

*Emphyema*, ab ἐμ, *in*, & πύον, *pus*, a Collection of Matter in the Cavity of the Breaſt.

*Empiric*, ab ἐμπειράω, *tento*, one who alledges Experience only for his Practice, without being able to ſhow a Reaſon.

*Emporium*, ἐπὶ τῷ ἐμπορεῖν, à negotiando, a *Mart-Town*, where the Buſineſs of Traffick is negotiated, metaphorically applied to the *Brain*, the great Place of rational as well as ſenſative Tranſaction.

*Emulſion*, ex *emulceo*, to ſtroak or cheriſh, vel ab *emulgeo*, to milk out gently by the Hand; a common Remedy prepar'd of Almonds and Seeds with Barly-Water, of the Colour of Milk, to aſſuage Thirſt, and demulce or mitigate the Heat, particularly of the Urine, occaſion'd by *Bliſters*, and in other Sharpneſs or Scalding thereof.

*Emu-*

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*Emunctorium*, ab *emungo*, to clean, or wipe away, to drain off, as by a Sink or common Sewer; figuratively with us apply'd to certain *Glands*, as the *Parotid*, which are called the *Emunctories* of the *Brain*; those in the *Arm-pits* and *Groins* to the *Blood* in general.

*Enarthrosis*, ex ἐν, in, & ἀρθρον, articulus, the first Species of the *Diarthrosis*, or Articulation of *Bones*, for manifest Motion, that is, where a large Head enters as large a Sinus, such is that of the *Femur* with the *Coxendix*.

*Encanthus*, ab ἐν, in, & κανθός, hircus, a Spongy Excrecence in the inner Corner of the *Eye*: See *Anchylops*, and *Ægylops*.

*Encephalus*, ab ἐν, in, & κεφαλή, caput, the *Brain* in general, and all the Parts contain'd within the *Skull*.

*Encysted*, or *Incysted*, ex ἐν, in, & κύστις, cista, any thing cover'd up in a Case or Bag, meant particularly of those three Tumours, *Atheroma*, *Steatoma*, and *Meliceris*; which see in their Order.

*Endemic*, ex ἐν, & δῆμος, populus, a Disease peculiar to some certain Region or Country.

*Enema*, ab ἐνίμμι, immitto; the same with *Clyster*, or an Injection thrown in by the Fundament.

*Ensiformis*, the Cartilage at the lower Part of the *Sternum*, or Breast-Bone, lying over the Pit of the *Stomach*; so termed from its Shape, like that of a broad Sword, and therefore named also *Mucronata*, and *Xyphoides*.

*Enterocoele*, ab ἐντέρον, intestinum, & κήλη, ramix, a Rupture of the *Peritoneum* by which the Intestine or Gut, coming down by the Rings of the *Processus*, makes the *Hernia* called *Intestinalis*.

*Enteropiplocele*, ab ἐντέρον, intestinum, ἐπίπλοον, omentum, & κήλη,

the same Accident, when, together with the Gut, the *Omentum* or *Caul* is also slip'd down therewith.

*Epidemic*, ex ἐπὶ, super, & δῆμος, populus, the same Disease universally raging at the same Time, in the same and other Countries.

*Epididimis*, ex ἐπὶ, super, & δίδυμος, testiculus, a Convolution of the *Spermatic Vessels*, before their Entrance into the *Testis*; the same with *Paristata*.

*Epilepsia*, ab ἐπιλαμβάνω, invado, a sudden and universal Convulsion of the whole Body, by the common People called the *Falling-Sickness*.

*Epileptica*, five *Anti-epileptica*, Remedies for the same.

*Epiptocoele*, ex ἐπίπλοον, omentum, & κήλη, a Rupture, with the *Caul* only falling through the *Processus*: *Hernia Omentalis*.

*Epimictis*, ex ἐπὶ, super, & νύξ, nox, implying any Disorder arising in the Night, particularly meant here of a small *Pustule* in the *Skin*, inflaming suddenly: Of which see my *Treatise* of those Diseases.

*Epiphyssis*, ab ἐπιούω, accresco, an Additament to the Head of a Bone, or an Elongation of the same, by one that is separable therefrom, or contiguous only, and therein differing from the *Apophysis*; altho' so closely adjoined or joined, as to appear one continued Bone: See *Apophysis*.

*Epiphora*, ab ἐπιφέρω, infero, i. e. impetus humgrum ab oculis, an involuntary Efflux of Tears; the same with *Rhyas*, according to some.

*Epispastic*, ab ἐπισπάω, attraho, a blistering Medicine.

*Epistropheus*, ex ἐπιστρέφω, circumverto; the same with *Cardo*, a Hinge, the second Vertebra of the Neck, so nam'd, for that the Head turns upon it, as a Door upon its Hinge.

*Epiethema*, ex ἐπὶ, super, & τίθημι, pono, any local Remedy may be



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be so denominated; Physicians use it chiefly for Liquors, in which Rags being dip'd. and express'd, are laid upon the Part.

*Epyulotica*, ab ἐπυλώω, *cicatricem infero*, Medicines proper to cicatrise or skin over a Wound or Ulcer.

*Erysipelas*, ἐξερυθρός, *ruber & πέλαιος*, prope, by reason of its reddish Colour; from a *Popish* Saint it is called also; *St. Anthony's-Fire*, or *Ignis Sacer*, the Holy Fire.

*Errhine*, ab ἐρ, *in*, & ῥίς, *nasus*, any Application intended for the Nostril.

*Escharotica*, ab ἐσχάρω, *crustam induco*, implying the same as the *Causlic*.

*Ethic*, ab ἠθικός, *mos*, the same with *Moral Philosophy*.

*Eulogy*, ex εὖ, *bene*, & λόγος, *fermo*, extolling or magnifying.

*Euporiston*, ex εὖ, *facilis*, & πορέω, *preparo*, a Medicine readily, or, as we say, prepar'd upon the Spot.

*Eusarchus*, ex εὖ, *bene*, & σὰρξ, *caro*, well flesh'd or corpulent.

*Euthanasia*, ex εὖ, *bene*, *facilis*, & θάνατος, *mors*, an easy Death.

*Exanthemata*, ab ἐξανθίζω, *effloresco*, any Eruption on the Skin; particularly here meant of the *Pustules* of the Small-Pox.

*Excrementitious*, ab excerno, *egero*, any Humour thrown forth the Body as useless, such as Urine, Stool, &c. in Contradistinction to those that are *Nutritious*.

*Excrescence*, ab excresco, to grow or shoot up, a Fleishy Substance arising upon any Part of the Body.

*Excreta & retenta*: See *Nomativalia*.

*Exfoliation*, the shelling off like a Leaf; among the Surgeons implying the same with *Desquamation*; or figuratively, a thin Scale like a Leaf, rising off from the sound Part of the Bone, as the Scale from Fish.

*Exomphalos*, ab ἔξ, *ex*, & ὀμφαλός, *umbilicus*; *umbilici protuberantia*, a Rupture of the Navel.

*Exostosis*, ab ἔξ, *ex*, & ὀστέον, *os*, *extuberantia ossis*, a Swelling in the Bones so called.

*Expantion*, ab expando, to spread forth or display; with us referring to the Animal Spirits, exerting themselves with the utmost Vigour, for the Relief of the Parts.

*Expectoration*, ab ex, & pectus, vel ab expectoro, to throw forth from the Breast, a raising of Phlegm, Blood or Matter from the Lungs, by coughing and hauking up of the same.

*Extravasation*, ab extra, & vasa, any Humour, but particularly Blood, thrown out of the Vessels, by some Rupture of the same, either outwardly or inwardly, and stagnising round about the Parts, or in the Cavities.

## F.

**F**abric, *ex fabrico*, to build or frame any Building or Structure raised by Art; but here figuratively intended of the humane Body, most stupendiously formed by the Wisdom of the *Supreme Architect*.

*Falx*, a Doubling of the *Dura Mater*, in the Form of a Scyth or Syckle, called by that Name, and dividing the Brain into the right and left Hemisphere.

*Ferment*, à *ferveo*: See *Effervesco*.

*Fibrilla*, a Diminutive, *ex fibra*, signifying a small and slender Thread, or Shoot from the Roots of Plants; here taken for those of the Nerves, and fleshy parts also.

*Fibula*, a Clasp or Button, here understood of the small Bone on the Outside of the Leg, so call'd, as they tell us, from joining the *Tibia* and *Muscles* together, as it were clasping them; the Antients used to bring the Lips of Wounds together by a Contrivance,

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trivance, unto which they gave this Name of *Fibula*.

*Fistula*, a Pipe or hollow Reed; but with us, from the Similitude, a hard and hollow Ulcer, running deep into the Flesh, or Cavities of the Body.

*Flammula*, I must confefs my self at a Loss for the *Ætimon* hereof; in our Acceptation, either *literally* or *figuratively*, it is a Derivative from *Flamma*, denoting a little Flame or Blaze; and with the Surgeons implying a Skein of Silk, at least some part of one, perhaps of a Flame-Colour, and so taking this Appellative, passed through the Eye of a large Needle, which is then thrust thro' the Skin and Flesh, in order to drein of some Humour from a *Sinus* or Cavity not safe to be dilated, or cut open: Which Operation is by the Surgeons named a *Seton*; the *Farriers* give it that of *Rowelling*.

*Focile*, signifies either of the two Bones below the Elbow in the Arm, and below the Knee in the Leg, with this Distinction of *major* & *minor*, from their Difference in Magnitude: And thus the *Ulna* is the greater *Focile* in the former, and the *Tibia* in the latter: But from whence rightly derived, I must here also acknowledge I am at an Uncertainty, tho' I well know the Meaning as well of *focillo*, as *focillor*.

*Fomentatio*, ex *foveo*, to cherish, a hot Liquor, apply'd with Flannels hard wrung, to the wounded or otherwise maimed Parts.

*Fomes*, à *fovendo*, aliquid quo *ignis fovetur*, Wood or Chips, or any other combustible Matter to keep up a Fire or Flame; but with us it is taken figuratively, for the Matter which keeps up a Disease; the same with *Pabulum*.

*Fontanel*, quasi *parvus fons*, a little Fountain; *metaphorically* among

the Surgeons the same with *Issor*, as in like Manner leisurely dreining off the Humours in the Blood.

*Forus*, the same with *Fomentatio*.

*Fracture*, à *frango*, to break; among the Practisers in Surgery taken particularly for a Breach or Separation in the Bones, by some Force or Violence offer'd thereunto.

*Fungus*, in the common Acceptation, signifies a Mushroom or Toadstool, ex *funus* & *ago*, as bringing Death to the Eater; but here, by *Analogy* of Substance, any spongy Flesh, springing in like Manner suddenly up, and of the like loose and spongy Nature.

*Furunculus*, ex *furo*, to rage, a little painful Swelling, inflaming the Parts, and gathering to Matter, called a *Coar*, by the common People, a *Bile*, or *Boil*.

G.

**G** *Angrena*, à γάγγρεξ, *cancer*, vel à γέω, *comedo*, a beginning Mortification.

*Gargarisma*, à γαργαρίζω, as *collo*, a *Gargarism*.

*Gastrocnemius*, à γαστήρ, *venter*, & κνήμιν, *tibia*, the two Muscles called external and internal, making up that Part we call the Calf of the Leg, swelling out like a Belly on the upper Part.

*Gastrophaphia*, ex γαστήρ, *venter*, & φάσθιν, *sutura*, the stitching up of Wounds of the Belly.

*Geometrical*, ex γῆ, *terra*, & μετρέω, *metior*, of or belonging to *Geometry*, or the Art of Measuring.

*Gingilavium*, ex gingiva, the Gum, & lavo, to wash; any Lotion or Liquid Composition for the Diseases of these Parts, as when affected with the Scurvy or Putrifaction therein.

*Ginglymus*, à γιγλυμῆμαι, per *gingly-*

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*ginglimum jungo*, the third Species of Articulation, usually reckon'd up by Anatomists under *Diarthrosis*, or that for manifest Motion, which is, when the same Bone receives and is again received.

*Glandula Odorifera*, so named from their strong or rancid Smell, of which those under the *Præpuce* or behind the *Glans Penis*, were so stiled by Dr. Tyson; and to which we think the *Parotide*, or those seated behind the Ears, have as good Title.

*Gomphosis*, à γομφίω, *clavum impingo*, the last of the Articulations, commonly accounted by the Writers of Anatomy, under *Synarthrosis*, or which is without Motion; the principal, if not the only Instance whereof, is the Teeth fasten'd in their *Alveoli* or Sockets, as a Nail in Wood, whence the Name.

*Graphical*, ex γράφω, *depingo*, any thing which is exactly or accurately describ'd.

*Grumus*, a Lump of any thing congeal'd, ex grumescō, meant here of Blood under that State.

*Gymnastica Medicīna*, à γυμνάζω, *exerceo*, a Way of curing Distempers by exercising the Body; the Place of strong Exercise, particularly Wrestling, being in Greek termed γυμνασιον.

*Gypseous*, from *gypsum*, Lime or Plaster, the Contents of some encysted Tumours, having a near Resemblance thereto.

## H.

**H** *Armonia*, belongs properly to the Agreement of Sounds in Musick; as also due Proportion, call'd otherwise *Symmetry* in Figures; with us it implies a strait or equal Line, or a Conjunction of the Bones by the same; being the second Way reckon'd under *Synarthrosis*, as the Bones

of the Nose: *Blancard* will have it so named, ab ἁρῶ, *congruo*, *adapto*.

*Hætic*, Gr. ἐκίητος, πυρετός, quod ἐν ἑξέτι, i. e. *in habitu corporis consistat*, to distinguish from the *Phthisis*, or Consumption of the Lungs.

*Hemicrania*, ex ἡμι, *semis*, & κεφάλιον, *calvarium*, a Head-Ach on one Side.

*Hemiplegia*, ex ἡμι, *semis*, & πλήρω, *percutio*, a Palsy on one Side.

*Hæmoptoe*, hæmoptysis, ex αἷμα, *sanguis*, & πύω, *spuo*, a Spitting of Blood

*Hæmorrhage*, ex αἷμα, *sanguis*, & ῥήγνυμι, *rumpo*, any Flux of Blood from Wounds or otherways,

*Hepatic*, ex ἥπαρ *jecur*, the Liver, Medicines proper to open the Obstructions thereof.

*Hernia*, à duritie pellis instar lapidis, quæ fit post intestinorum descensum, à Sabinorum lingua, qui *Herniam*, *Saxum* vocant τὰ ἐρνῶ, *formarunt*, quod cum intestinum incipit in scrotum decidere videtur *Ramum* facere, unde & *Ramex* dicta, Gr. κλην, ob similitudinem descendens rami, ut *Hernia*, ab ἐρνῶ, *ramus*, a Rupture or falling down of the Bowels into the Groin or Cod.

*Herpes*, ab ἐρπῶ, *serpo*, a Tettar or Ring-worm.

*Heterogeneous*, ex ἕτερος, *alter*, & γένος, *sexus*; with us several things of differing Kinds mixed together, as happens to that Fluid in our Vessels, we call Blood.

*Homogeneous*, ex ὁμοῦς *similis*, & γένος, *sexus*, Things alike or of the same Kind.

*Horizontal*, any Thing upon a level Figure, as the extreme Circle of the *Horizon*, terminating our Sight, with the *Axis* of the Eye, ab οὐρανὸν *finiens*, vel *visum terminans*.

*Horror*,



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*Horror*, ab *horreo*, to shake with Cold, common in the first Attack of all Fevers, but particularly the intermitting, called *Agues*.

*Hydragogue*, ab ὕδωρ, *aqua*, & ἄγω, *duco*, Medicines to purge Water.

*Hydrocele*, ab ὕδωρ, & κήλη, a Watery Rupture; the same with *Hernia Aquosa*.

*Hydrocephalus*, ex ὕδωρ, *aqua*, & κεφαλή, *caput*, a Dropsy of the Head, meaning the Hairy Scalp.

*Hypersarcosis*, ex ὑπέρ, *super*, & σὰρξ, *caro*, spongy or proud Flesh.

*Hypothesis*, ex ὑπερλίθηναι, *suppono*, something advanc'd upon Supposition.

*Hypnotic*, ex ὕπνῳ, *somnus*, Remedies that procure Sleep.

*Hysteric*, ab ὕστερα, *uterus*, such as are proper for the Womb and its Diseases.

## I.

**I***chor*, Gr. ἰχὼρ, a sharp, thin and bloody Humour, flowing from putrid Wounds and Ulcers, the same with some, as *Sanies*.

*Icterus*, ἰκτερός, idem quod *Aurugo*, vel ab *ærugine*, the Jaundice, so termed from its Yellow-Colour like that of Gold, or the Canker or Rust of Metal, such as that gathering upon Copper or Brass, where the same have been long exposed in damp Places, or to the external Air.

*Illuvies*, ab illuo, vel ex in, & lava, any Filth or Uncleaness; here meant of that heap'd up in the Blood.

*Incarnation*, ex incarno, to fill up with Flesh: See *Carnified*.

*Induration*, ex induro, to harden, a Hardness in the Flesh.

*Instinct*, ab instinguo, to stir up or move; implying the natural Bent or Disposition of all Creatures, to pur-

sue or avoid what is good or hurtful to their several Beings; the same with *Archæus*, in the rational Species.

*Intemperies*, ex in, & tempero, any Disorder or Indisposition of the Blood or Humours; the same with *Dyscrasy*.

*Ischama*, ab ἰσχύω, *cohibeo*, & αἷμα, *sanguis*, Blood-Staunchers.

## K.

**K***atamenia*, See *Catamenia*.

## L.

**L***abrisulcium*, ex *labium*, & *fulcus*, a chap'd Lip; with us a swell'd upper Lip, having a Crack or Cleft in the Middle, being a Sort of *Parthognomonic*, or Symptom of the Disease called the *King's Evil*.

*Lacuna*, any small Holes within another Cavity, but here understood of those in the *Vagina Uteri*, or Sheath of the Womb, from whose Pores issue forth the Humours in the *Fluor albus*; the same which, according to a late Writer, furnish also the Matter of the *Venereal Gonorrhæa*.

*Languor*, ex languo, to grow faint, a Weakness or Sinking of the Spirits.

*Larynx*, the upper Part of the *Aspera Arteria*, or Wind-pipe, as *Pharynx* is of the Gullet.

*Latex*, any thin or Watery Humour; with us the vapid, serous one of the Blood.

*Lenticular*, an Instrument used by Surgeons, to smooth the rough Edge of the *Cranium*, if standing in need thereof, after the Use of the *Trepan*, to prevent the Membrane underneath from being thereby offended.

*Lentuous*,

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*Lentuous*, à *lento*, to make smooth, here meant of the slimy or ropy Juices in the Blood.

*Levator*, ex *levo*, to raise or lift up: See *Elevator*.

*Leucophlegmatic*, à *λευκός*, *albus*, & *φλέγμα*, *pituita*, a Constitution abounding with crude phlegmatic Humours, as in the Disease called *Febris alba Virginum*, by the common People the *Green-Sickness*.

*Lienteria*, ex *λειότης*, *levitas*, & *έντερον*, *intestinum*, a Flux of the Bowels, when, thro' their Slipperiness, the Aliments pass out undigested, or little altered from what they were, when taken into the Stomach.

*Limbus*, Gr. *λοβός*, a Hem or Border round a Garment; here taken for the outside Compass of the Brain.

*Leiporhymy*, ex *λείπω*, *deficio*, & *θυμός*, *animus*; the same with *De liquium*, and *Languor*.

*Lithotomy*, ex *λίθος*, *lapis*, & *τέμνω*, *seco*, *incido*, the Operation of Cutting for the Stone.

*Lippitudo*, i. e. *λήμη*, *οφθαλμία*, vel *ξηροφθαλμία*, a Blearedness of the Eye.

*Lixivium*, a Lye made with Ashes.

*Lochia*, à *λέχομαι*, *cubo*; here taken for the Purgations issuing from the Womb, the first Days of a Woman's Lying in, or after Child-Birth.

*Ludicrous*, ex *ludo*, to play, or wanton; with us refer'd to Nature's sporting as it were in some of her Productions.

*Lumbago*, ex *lumbus*, & *ago*, a Pain in the Back or Loins, as happens before the Eruption of the Small-Pox; also after hard Labour, Blows and Falls on those Parts.

*Lupia*, a small Tumour of the incysted Kind, like the *Ganglion*.

*Lusus Natura*, the same with *Aberratio*; also *Ludicrous*.

*Luxuriant*, à *luxurio*, to exceed, or over-abound; among Artists importing the same with *Hyperfarcosis*, and fungous Flesh.

## M.

**M** *Acrocōsm*, ex *μακρός*, *magnus*, & *κόσμος*, *mundus*, the Great World, in Contradistinction to *Ma<sup>n</sup>*, Metaphorically the Little One.

*Magma*, ex *μάζω*, *exprimo*, the Fæces or Remains of a Decoction after the Liquor is press'd forth.

*Malleolus*, a Dim. from *malleus*, ob similitudinem *mallei*, the lower protuberating Parts of the *Tibia* and *Fibula*, constituting the outer and inner Ankles.

*Mamilla*, quasi *parva mamma*, vel *mala parvula*, the Nipple of a Woman's Breast.

*Mandibulum*, ex *mando*, to chew, the Jaw-Bones, whether upper or lower.

*Marasmus*, à *μαρξίνω*, *marcesco*, to waste or pine, a Consumption of the whole Body.

*Mathematici*, idem quod *Mathematicus*, à *μανθάνω*, *disco*, vel *μάθησις*, *disciplina*, one skill'd in *Mathematics*, as *Geometry*, *Astronomy*, &c.

*Matrices*, the Places in which Infants are hatch'd and nourish'd, as the *Fœtus* in the *Matrix* or Womb of a Woman.

*Maturation*, à *maturo*, to ripen or bring to Perfection; with us the Gathering of an *Abscess* or *Apothem*.

*Mechanism*, *μηχανικὴ τέχνη*, *ars machinalis*, à *μηχανή*, *machina*, of or belonging to *Mechanics* or *Handicrafts*.

Medi-

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*Meditullium*, quasi *meditellium*, ex *medium*, & *tellus*, the Middle of the Earth, called by Navigators the *Mediterraneum*, and is applied to the very Midst of any Thing else; particularly by Anatomists, the Interstice or middle Space between the two Tables of the Skull, is so denominated: See *Dyploe*.

*Medulla oblongata*, a Part of the Brain, so call'd from its Figure, the Beginning or Source of the Spinal Marrow, whence the Nerves arise within the Skull, before it descends through the great *Foramen* in the *Occiput*.

*Medulla panis*, the inner or Crumbmy Part of a Loaf, used by the Surgeons for thickening of *Cataplasms*, or making of *Pulvises*.

*Melanagoga*, ex μέλας, *niger*, *ater*, & ἄγω, *duco*, Medicines that purge *Melancholy*.

*Meliceris*, ex μέλι, *mel*, & κελειον, *farus*, one of the encysted Tumours, from its Contents like Honey, so denominated.

*Meninx*, idem quod *Mater*: See *Dura Mater*.

*Mesenterium*, ex μέσον, *medium*, & ἐντέρον, *intestinum*, the Membrane sustaining and collecting the Guts together in the *Abdomen*.

*Metastasis*, ex μετάσσειν, *translatio*; among Physicians denoting a Translation or Shifting of a Disease, at least the Matter thereof, from one Part to another.

*Metrenchita*, ex μήτρα, *matrix*, & κύω, *fundo*, a Womb-Syringe.

*Metrapropticon*, ex μήτρα, *matrix*, *uterus*, & πρὸς πίπτειν, *prolapsus*, a Plaister or other Remedy for the Falling of the Womb.

*Microcosm*, ex μικρός, *parvus*, & κόσμος, *mundus*, the Little World Man, so call'd: See *Macrocosmus*.

*Myotomist*, ex μῦς, *musculus*, & τέμνω, *feco*, One well vers'd, as we

say, in Muscular Dissection.

*Mithridate*, a vulgar Composition of the Shops, taking its Name from its Inventor, *Mithridates*; though in our *Dispensatories* going under that of *Damocrates*.

*Mucronata*, ex mucro, the Tip, the lower Extreme or Cartilaginous Point of the *Sternum*, or Breast-Bone, lying over the Stomach.

*Mundificantiæ*, ex mundifico, to cleanse, Medicines proper to cleanse Wounds or Ulcers; the same with *Detergents*.

*Myocephalus*, ex μύια, *musca*, & κεφαλή, *caput*, a Disease of the Eye, in which, by a Rupture of the *Cornea*, the Chrystalline Humour hangs out of the Perforation, resembling the Head of a Fly.

N.

**N** *Narcotica*, ἀναρχάω, *stuporem induco*, Remedies that take away Pain by blunting the Sensation.

*Nasalia*, are small oblong Bodies put up into the *Vagina* of Virgins, in like Manner as the *Pessaria* into those of married Women.

*Natta*, a Tumour growing out on the Back, at sometimes of large Dimensions, reckon'd amongst the encysted, and called Wens.

*Naviculare*, the same with *Cymbiforme*.

*Necrosis*, ἀ νεκρῶω, *morte afficio*, a perfect Mortification.

*Neurotica*, ἀ νεύρον, *nervus*, Remedies for the Diseases of those Parts.

*Nonnaturalia*, ita vocantur quia non in corpore secundum naturam, sicut facultas, nec prater, sicut morbi, sed inter utrumq; nam cibus medicrriter sumptus corpus nutrit, aliter offendit, & sic de cateris; the *Nonnaturalis*, which are reckon'd six, viz.

C c

the



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the Air, Meat and Drink, Sleep and Waking, Motion and Rest, Things evacuated, called *Excreta*, Things retained, called *Retenta*, and *Passions* of the Mind: on the due and regular Ordering of which great Strefs is laid, as to the Healthful or Sickly State of our Bodies, and by which the Sick and Wounded are much affected.

## O.

**O**edema, ab οιδέω, *inflatus sum, tumeo*, the third of the four general Tumours, arising from *Phlegm*.

*Omoplate*, by some *Homoplate*, ab ομοϑ, *humerus*, & πλατύς, *latus*; the same with *Scapula*, or the Shoulder-Blade.

*Opaque*, ab ορατο, to shade from the Light, any Thing of an obscure or darkish Colour.

*Ophthalmia*, ex οφθαλμίτης, *oculus*, an Inflammation on the outer Coat of the Eye, called *Adnata*.

*Orgasmus*, ab οργαζω, *impetum facio*, an Outrage of the Spirits.

*Orthopnea*, ex ορθή, *recta*, & πνοή, *spiratio*, that Species of *Anhelitus*, or difficult Respiration, in which the Sick cannot draw his Breath, unless sitting upright: See *Anhelous*.

*Oscillation*, ab oscillo, to swing up and down like a See-saw upon a Rope, or Board laid cross a Plank; in our Sense apply'd to the *tonic* Motion of the Fibres, like to that of the *peristaltic* One of the Guts.

*Osteocolla*, οστεόν, *os*, & κόλλα, *gluten*, a Kind of Focil, taken from under Ground in some Parts of Germany, endow'd, at least supposed, with great Vertue in forwarding the *Callus*, or Cement for broken Bones.

*Osteology*, ex οστεόν, *os*, & λόγος, *sermo*, vel λέγω, *dico*, a Discourse of the Bones in general.

*Ovarium*, the Ovary, or Egg-bag, in Fowls; in Women the *Testis*, from its supposed *Analogy* therewith, in this last Age so termed.

*Oxycratum*, ab οξύ, *acutè*, & ξερόν, *miscra*, a Mixture of Vinegar with Water.

*Oxydorcica*, ab οξύ, *acutè*, & δόρκα, *video*, Remedies to strengthen or quicken the Sight.

*Oxyrhodinum*, ab οξύ, *acutè*, & ῥόδον, *rosa*, an antient Form of Remedy prepar'd of Rose-Leaves and Vinegar, which in Head-Achs was wont to be laid on the Forehead.

*Ozana*, ab ὄζω, *olfacio*, a stinking Ulcer of the Nostril so termed.

## P.

**P**abulum, à πάω, *nutrio*, Forage or Sustenance; also Fewel for the Fire, or Oil for a Lamp; the same with *Fomes*.

*Pampiniforme*, ex *pampinus*, & *forma*, the Spermatic Vessels in their Descent to the *Testes*, from their divaricating like the Tendrils or Twigs of the Vine, so named by Anatomists; the same with *Varicosum*. *Corpus*.

*Pancreas*, ex πᾶν, *totum*, & κρέας, *caro*, that Part in Animals call'd the Sweet-Bread.

*Pannus*, quasi *panis*, a Swelling with Inflammation rising under the Chins of Infants and young Children, appearing like a little Loaf, and usually turning to Matter; the same, according to *Celsus*, with φούδλον.

*Paracentesis*, ex παρακενέω, *compungo*, the Operation of Tapping for the Dropsy, call'd *Ascites*.

*Paradox*, ex παρὰ, *prater*, & δόξα, *opinio*, somewhat advanced, appearing

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appearing strange or contrary to the common Opinion, however proved to be true.

*Parabysis*, ex παρὰ λύω, *resolvo*, the Palsy.

*Paraphrenesis*, ex παρὰ, de, & φρενί, *mens*, i. e. *mentis affectio*, a Frensy or *Delirium*, arising, according to the antient Opinion, from an Inflammation of the *Diaphragm* or *Midriff*, to which they were wont to give the Name of φρενί, or *mens*, from its great Consent, as they supposed, with the Brain.

*Paraplegia*, vel *parplegia*, ex παρ, i. e. *aqualis*, & πλήττω, *percutio*, a Palsy of both Sides, or of all Parts below the Head.

*Paregoric*, ex παρηγορέω, *lenio*, *mitigo*, Remedies to assuage Pain, whether by inducing Rest, or otherwise soothing the Spirits, and, according to *Helmont*, delighting the *Archæus*.

*Parenchimatous*, à παρὰ κύω, *in-fundo*, vel ex παρὰ, & χυμός, *sucus*, the Substance of the *Liver*, *Spleen* and *Lungs*; and in general to be understood of the loose and Juicy Stuffing, giving Bulk to some others, and filling their Vesiculous Parts.

*Parietal*, quasi *pares*, for that there are two of them; the Bones of the *Synciput*, like Walls, in Latin *paries*, defending and encompassing the upper Part of the Brain; the same with *Bregma*.

*Paronichia*, ex παρὰ, *juxta*, & ὄνυξ, *unguis*, a painful Swelling about the Nails, called by our People a *Whitlow*, or a *Whitflaw*, and the worst Sort a *Felon*; of which see our Treatise *de Morbis cutaneis*.

*Parotides*, ex παρὰ, *pone*, & ὤς, *auris*, a Swelling behind the Ears, or of those Glands we have before styled *Odorifera*.

*Paroxysmus*, à παροξύνω, *exacerbo*, the Time of a Fever-Fit, or its Ex-

acerbation, when the Heat, Restlessness and other Symptoms, are most raging.

*Pathognomonic* ex πάθος, *passio*, & γινώσκω, *cognosco*, some peculiar Symptom always attending upon the same Disease, and by which such Distemper is known to the Physician from others of near Resemblance; as the dry Cough and hard Pulse, with Pain in the Side, in the *Pleurisy*.

*Pedunculus*, quasi *pes parvus*, the Stalk or Stem of a Plant; but here meant of the small Roots or Bases of some Wenny Tumours, or other Excrescences sprouting forth several Parts of the Body.

*Percolation*, à percolo, to strain through a Sieve, any strained Liquor of a Decoction or Infusion; but here applied to certain Juices secreted, and as it were strained through the Pores of the Glands.

*Pericranium*, ex περί, *circum*, & κρανίον, *caput*, the Membrane immediately investing the Outside of the Skull.

*Periosteum*, ex, περί, & ὀστέον, *os*, that which cloaths all the other Bones of the Skeleton.

*Periphery*, ex περί, & φέρω, *circumfero*, the outside Line of a Circle, or the Circumference of any Body.

*Periphimosis*, ex περί, & φίμος, *obturamentum*, a Swelling of the *Prepuce* and *Glans*, by the former being forced behind the Neck of the latter, there as it were strangling of the same.

*Peripneumony*, ex περί, *circum*, & πνέμων, *pulmo*, an Inflammation of the Lungs.

*Peristaltic*, ex περιέλλω, *contraho*, *arcto*, the constant and incessant Motion of the Guts.

*Pernio*, à perna *calcaneum*, ut Gr. χειμαθλον, à χεῖμα, *hyems*, a Kibe or Chil-blain.

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*Pessarium*, idem quod *Pessus*, a Form of Remedy prepar'd of Gums and other Materials, of an oblong Figure, to be introduc'd by the *Pudenda* of Women, for the Relief of the Womb, as its Bearing-down: See *Nascaleum*.

*Pestilential*, à *peste*, some highly malignant and contagious Fever, of kin to the Plague.

*Phagadana*, à *φαγω*, *edo*, & *δάκνω*, *rodo*, vel *ἐπὶ τῷ φαγεῖν*, ab *edendo*, a stubborn, corrosive or eating Ulcer.

*Phalanges*, a Military Term borrowed from Souldiers placed in Array of Battle, a Four-square Army being called *Phalanx*; here refering to the Bones of the Carpus placed in like Rank or Order.

*Phantome*, à *φαίνω*, *appareo*, an imagin'd Apparition in Sleep, or some whimsical Phancy of a Person as it were dreaming.

*Phaenomenon*, ex *φαίνομαι*, *appareo*, taken usually for some Appearance in the Air; but with us for somewhat carrying a Resemblance to, or shew of Truth, by way of Inference or Deduction, intended to countenance some Proposition, or for Support of an *Hypothesis*.

*Phimosis*, ex *φίμω*, *obturamentum*, the Contraction of the *Prepuce* at the End of the *Glans*, as the *Periphimosis* over its Neck.

*Phlegmagogue*, ex *φλέγμα*, *pituita*, & *ἄγω*, *duco*, Medicines to purge off the phlegmatic Humours of the Blood.

*Phlebotomy*, ex *φλέβ*, *vena*, & *τέμνω*, *seco*, the same with *Vena-section*, or opening a Vein with a Lancet.

*Phlegmon*, à *φλέγω*, *inflammo*, *uro*, any Inflammation; but particularly meant of the first of the four common Tumours, reckon'd by the antient Writers.

*Phlegmonoides*, ex *φλεγμονή*, *phlegmon*, five *inflammatio*, & *είδος*, *forma*.

*Phrenitis*, *phrenisis*, à *φρεν*, *mens*, i. e. *mentis alienatio*, a Frensy or Madness: See *Paraphrenisis*.

*Phthisis*, à *φθίω*, *corrumpo*, taken usually by Physicians for a Consumption of the Lungs, called a *Pulmonary Phthisis*.

*Phygethlon*: See *Panus*.

*Phyma*, à *φύω*, *creasco*, vel *φύομαι*, *nascor*, a Swelling or large Boil, or in general any Apostem; but particularly applied to those glandulous Tumours of the Jaws of Infants and young Children, frequently inflaming and turning to Matter; also a Swelling near the Fundament, going by the same Name: *Celsus* calls it by that of *Tuber*, from its Likeness to a Puff springing out of the Ground; *Blancard* gives this Name of *Phima* to the *Verruca Manus*, & *Calli Pedum*, as also to other cutaneous Excrescences.

*Physic*, à *φύσις*, *natura*, implying in general any Part of Natural Philosophy, but here particularly restrained to Medicine.

*Pia Mater*, seu *Meninx Tenuis*, the Membrane immediately investing the Substance of the Brain: See *Dura Mater*.

*Pituitous*, ex *pituita*, Phlegm of such Habit or Constitution.

*Plethora*, à *πλήτω*, *impleo*, implies a Fulness of the Blood-Vessels, a full Habit of Body, called otherwise *plethoric*.

*Pleuritic*, à *πλευρά*, *latus*, an Inflammation of the *Pleura*, or Membrane covering the Ribs, a *Pleurisy*.

*Pneumatocoele*, à *πνεῦμα*, *ventus*, & *κήλη*, *ramix*, a Windy Rupture; called otherwise *Hernia Ventosa*.

*Poly-*



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*Polyrus*, ex πολὺς, *multus* & πῆς, *pes*, a Hog-Louse or Sow-Bug, from its great Number of Feet called also *Millepedes*: likewise a Fish bearing that Name, and with us a spongy Tumour in the upper Part of the Nostril; *quod poly-pi marini sit similis, nam & carne eum refert, & multas habet radices, uti piscis ille pedes*, says *Vossius*.

*Posca*, the same with *Oxycratum*.

*Præcordia*, ex præ, & cor, the Vital Parts in general, or those about the Heart, the Region of the Breast.

*Prædominion*, ex præ, & domino, the MasterShip or Government.

*Præponderate*, ex præpondero, to outweigh or bear-down the Scale, any Thing exceeding in Weight or Gravity.

*Præputium*, à præputando, præscindo, the *Præpuce* or Fore-skin, so called for that the same was cut off by the Jewish Rites, or according to the Law of *Moses*, in the *Old Testament*.

*Procatartic*, à προκαταίρω, antecedior, an Antecedent or fore-leading Cause to the Disease.

*Procidencia*, à procido, to fall down, a Bearing-down of the Womb or Fundament.

*Prognostic*, a προγνώσκω, præcognosco, a Fore-telling of the Issue or Event of a Disease, founded upon a right Knowledge of its Nature, and common or customary Way of its Termination.

*Prophylactic*, à προφυλάσσω, præfereo, any Remedy taken by way of Prevention, or as preservatory against a Disease.

*Prolapsus*, à prolabor, to slip down; the same with *Procidencia*.

*Pronation*, is when the Arm is so inclined, as that the Palm of the Hand is turn'd inwards and downwards; as

*Supination* is when the same is placed upwards, with the Back of the Hand downwards; by Means of the Muscles inservient to those Motions.

*Prothesis*, à προσίθηναι, appono, a Part of Surgery or Mechanics, rather teaching to supply some Defects of the Limbs, as in the artificial Arm, Leg, Eye, Nose, &c.

*Prothetic*, the same with *Prothesis*.

*Protopathic*, ex πρώτῳ, primus, & πάσχω, patior, the Part primarily or first affected, to difference it from that suffering by *Sympathy*, or Consent with some other.

*Psalismus*, à ψάλλω, spuo, the same with *Salivation*.

*Ptisana*, a πτίσσω, decortico, a Liquor of the Antients, called *Ptisane*, given for to allay Thirst in Fevers, from the Barly therein unhusked and boild, so denominated.

*Pyxis*, Gr. πυξίς, à πυξίς, the Box-Tree, from whence usually they were made, a Box or Cup; here apply'd to the Hollow in the Hip-Bone, receiving the Head of the Os Femoris, or Thigh-Bone, as into a Cup or Box.

*Pubescency*, à pubesco, to grow up, the Age of Youth or Puberty.

*Pulsation*, à pulso, to knock or thump, the Stroak of an Artery, called the *Pulse*.

*Pultricular*, of a Pultis-like Consistence.

*Pusillanimity*, ex pusillus, & animus, Cowardice, one that is faint-hearted.

Q.

**Q**uinsey, See *Angina*.

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R.

**R** *Anula*, quasi *rana parva*, a Tumour under the Tongue; so named, either from some fancy'd Resemblance thereto, in its Shape or Figure, or for that it makes the Patient imitate, in his Voice, the croaking hoarse Noise of the Frog.

*Raphe*, the same in *Greek* as *Sutura* in the *Latin*; implying, in the Sense of Anatomists, the first Species of Articulation of the Bones, particularly the *Cranium*, under *Synarthrosis*, or without Motion, called Suture or Indenture: See *Sutura*.

*Regimen*, à *rego*; in a Physical Sense importing the due Ordering or Government of sick People.

*Repullulate*, ex *repullulo*, to bud afresh; here taken for the Flesh in Ulcers, sprouting as it were up a-new.

*Repulsion*, à *repello*, to drive back, a Repelling of a Humour flowing to the Parts, by the Means of stiptic or restraining Medicines.

*Reserate*, à *resero*, to unstop, an Opening of the small Tubes or Pipes of the Body, obstructed by Humours therein, as it were stagnant and lock'd up.

*Resolutive*, à *resolvo*, to unloose; Remedies intended to breathe forth the Humours impacted in the Skin or Flesh.

*Resonitus*, ex *resono*, to resound, an Echo or Sound in the Air, drove back, as in some Places, whence it came; among Surgeons it is taken for a Fracture or Fissure in the *Cranium*, in some Part directly opposite to that which is struck, being the same with the *Contrafissure*.

*Restrictive*, à *restringo*, to bind hard; a Medicine intended to lock up the Pores and Passages of the Vessels, and thereby inhibit the shed-

ding forth of their Contents; of kin to the *Repulsive*, and directly contrary to the *Resolutive* and *Reserating*.

*Retenta & excreta*, one of the Six *Nonnaturalis*: See *Nonnaturalia*.

*Revulsive*, à *revello*, to call off as it were, and pull back, to draw off a Humour by a Way quite contrary or opposite; and thus a Blister in the Neck makes *Revulsion* in an Inflammation on the Eyes or Fore-part of the Head, as also from the Breast; bleeding in the Feet, revells also from the upper Parts or those above: See *Derivation*.

*Rhyas*, Gr. ῥυάς, à ῥέω, *fluxio*, *oculorum fluxio*: See *Epiophora*.

*Rigor*, à *rigeo*, to grow stiff with Cold; among Physicians denoting a sudden Shiver, or Shock of the whole Nervous System, frequently recurring, a universal Spasm, a Symptom of the worst Kind, frequent upon *Amputations*, *Fractures* attended with *Gangrene* and *Mortification*, and some Kinds of Fevers.

*Rima*, a Rift or Cleft in Wood; with the Surgeons a Fissure or Chink like Division of the Bones of the Skull, happening by Blows or Falls.

*Rimula*, quasi *parva rima*; Anatomists give this Name to the Cartilaginous Rings of the Wind-pipe, whose Interspaces are fill'd up by its Coats or Membranous Expansions, fastening them at equal Distance from each other, quite through the Pulmonary Lobules.

*Rythm*, à ῥυθμίζω, ad *numeros aptos refero*, vel à ῥυθμός, a Term in Musick and Poetry, relating to exact Numbers, or due Harmony; with Physicians taken for the Distance of Time between the *Systole* and *Diastole* of the Artery, or the Interspace between the Vibration of its Coats.

Rup-

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**Rupture**, à *rumpo*, to break; distinguished by the Practitioners of Surgery, from the *Fracture*, in that the latter relates to a Breach in the harder Parts of the Body, the *Bones*; the former to a Rent in the softer; but particularly now understood of that made in the *Peritoneum*, or Rim of the Belly, letting through the Bowels into the Groin or Cod: Or as by the Word *Fracture*, is imply'd a Solution by *Breaking*, in the Rupture there is also a *Rending* or *Tearing*: Or in other Words, as *frango*, signifies to *break*, so *rumpo*, to *rend* or *tear* in *funder*.

## S.

**Saburra**, à *fabulo*, a Load of Sand, Gravel, or Rubbish, with which they ballast Ships; by a Figure taken among Physicians, for a Heap of filthy Humours congested in the Stomach, and *prima via*, of some morbid or diseas'd Bodies.

*Sagittalis*: See *Sutura*.

**Sarcocoele**, ex σάρξ, caro, & κύλη, ramex, a Flethy Rupture; called by the Surgeons *Hernia Carnosa*,

**Sarcoma**, idem; any Flethy Excrescence, or Tumour of a Flethy Substance.

**Sarcotic**, ex σαρκώω, incarno; Medicines that fill up the Hollow of Wounds and Ulcers with new Flesh; the same with *Incarnation*.

**Scabies**, à *scabo*, to scratch, the *Scab* or *Itch*; *Pruritus*, à *prurio*, denoting the same Distemper.

**Scalprum**, à *scalpro*, to raspe or rase; an Instrument with which the Surgeons scrape off the Rottenness of the Bones, called *Rugining*.

**Schirrus**, à σκίρρῶω, induro, the last of the four general Tumours; from its Hardness borrowing that Epithet.

**Schrophula**, vel *Scrofala*, Gr. χορδαίς, idem quod *Struma*; according to *Celsus*, à *suibas*, sic dict. qui peculiariter hoc morbo infestantur, unde ut *Porcellus* à *porcus*, sic *Scrofala* à *scrofa*: Whether so or not, 'tis certain the Word *Scrofala* stands in our common *Lexicon*, for a little Pig: But with us is meant a Disease of the Glands, going under the Name of the *King's Evil*.

**Scrobiculum Cordis**, the Pit of the Stomach, called of some the *Heart-Pit*; the Word *Scrobiculum* standing for a little Pit or Furrow.

**Scutiform**, ex *scutum*, & *forma*, signifying an Application Plasterwise to the Stomach, in the Figure of a Shield or Target worn by the Antients, to defend the Heart from the Arrows or Darts of the Enemy.

**Secerned**, à *secerno*, to separate one Thing from another; imply'd here of the Liquor or Juice separated by the Glands; the same with *Secreted*.

**Sedes**, a Seat or Point, the Spot in the Dice; with the Surgeons taken for the same Thing in the Bone, as the Puncture in the Flesh; an Impression in the Skull particularly, occasion'd by the Point of a sharp Instrument struck forcibly therein to.

**Septic**, à σήπω, putrefacio; Medicines to waste proud Flesh, of a middle Nature, between the *Cathartic* and *Causitic*.

**Seton**, a sort of double *Fonsanel*, kept open by drawing a *Flammula* through the Skin, at about an Inch Distance each Orifice from the other; made for the most Part, or of Choicc, in the Neck, to discharge certain Humours offending the Head or Eyes, or for Relief of the Breast, as in *Asthma's*, and stubborn *Catarrhs*; likewise of Necessity in o-



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ther Parts, to give Vent to some Matter that lies too deep for cutting open the Cavity, and cannot otherwise be empty'd: See *Flammula*.

*Singultus*, à *singulto*, to sob; a Convulsion of the *Æsophagus*, according to some; or, as others, of the upper Orifice, called the Mouth of the Stomach; the *Hiccup*.

*Siphylis*, idem quod *Morbus Gallicus*, sive *Lues Venerea*.

*Sopor*, à *sopio*, Gr. κοιμισις, κωμια, the same with *Coma Somnolentum*, a profound Sleep, with Snoring as in a Lethargy, being a common Attendant upon Fractures of the Skull, with Concussion of the Brain, and great Extravasation of Blood upon the same.

*Sordes*, à *sordéo*, vel *sordescio*, any Filth or Nastiness, through Sluttish Neglect, gathered together; but with the Surgeons, implying the putrid Filth lying undigested in some Wounds and rotten Ulcers, being thick, and sticking fast therein.

*Spasmodic*, à *σπασω*, *contraho*, a Convulsive Twitch or Vellication of the Nerves; any Cramp-like Disorder thereof.

*Specific*, ex *specifico*, Gr. ειδοποιεω, ex *species* & *facio*, a Medicine peculiarly suited by some intrinsic Property, or Way of acting less known to us, to subdue a Disease; though now the Subterfuge of many *Quacks* and *Emperics*, who cry up the most ridiculous Medicines, under the same Denomination.

*Speculative*, à *speculor*, the studious or inquisitive Part of Medicine; the *Theory*, to distinguish from the *Præctic*, or experimental.

*Sphacelus*, Gr. σφάκελος; the same with *Necrosis*.

*Sphincter*, à *σφίγγω*, *constringo*, an orbicular Muscle, or one that is com-

pos'd of circular Fibres, by which contracting themselves, they are enabled to purse up or shut close the Parts they belong to; of which Sort are the Sphincters of the *Bladder*, *Anus*, *Vagina Uteri*, and the *Lips*.

*Stagma*, à *σταίω*, *stillo*, a Caustic, or burning Liquor, drawn by *Chymistry*.

*Steatoma*, ex *στέαρ*, *adeps*, *sebum*, one of the encysted Tumours; so nam'd from its Contents, like that of Fat or Suet.

*Stigma*, Gr. στίγμα, à *σίω*, *pungo*; properly the Mark or Brand left after the Burning of Thieves and Fellons, in the Forehead or Cheeks, whence the Word *Stigmatizing* imply'd antiently some great Reproach; but with us it stands for a Seam or Scar left behind a Wound, Ulcer, or other Distemper preceeding; the same with *Cicatrix*.

*Stimulus*, à *stimulo*, to spur on, or prick; any Thing which irritates or gauls the Nervous Fibres, exciting therein some powerful Contraction, by which the Fluids are quicken'd in their Motion, Glandular Secretion augmented, and the Spirits, before dull and torpid, roused up to shake off the Enemy; the principal of these are *Blisters*, which, in all Sleepy Distempers, malignant and other Nervous Fevers, do more than all other Remedies besides.

*Stria*, à *strio*, the Chamferings and Cellular Partitions observable in some Bones.

*Struma*: See *Scrofula*.

*Styloides*, ex *σύλον*, *stylus*, & *εἶδος*, *forma*, a Boney Process so call'd, from its Likeness to a Bodkin or Pencil; there are two such rising out of the Base of the Skull, and one an Appendage to the lower Part of each *Ulna* at the Wrists.

Sub-

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*Subluxation*, ex *sub*, ex *luxo*, a Bone as it were half out of Joint, when by a Stretch of the Ligaments suddenly, or their gradual Relaxation, the Head of the Bone moves out of its Cavity, lying even with, or on the Brims of the Cup, which may be possible in the Case of congested Tumours about the Joints, especially those of the Hip or Shoulder, relaxing of the said Ligaments; but otherwise, I believe, seldom happens: This Accident is named by some a *Demi-Luxation*, by others a *Semi-One*.

*Subsultus*, ex *subsulto*, vel ex *sub*, & *salto*, a Capering, Jumping, or Dancing; figuratively by Physicians for those Jerks and Leapings of the Tendons, particularly of the Hands and Wrists of dying Persons, or those labouring under malignant Fevers; which are always reckon'd amongst the most threatening Symptoms.

*Suffusion*, à *suffundo*, a Darkness or Cloudiness of Sight; of some Affinity to the *Cataract*.

*Sugillation*, à *sugillo*, to make Black and Blue: See *Echymosis*.

*Sulcus*, a Furrow, Ditch or Trench; taken with us for a Tract made in the *Cranium*, by the Saw in *Trepanning*; or the Furrow in an Instrument called a *Director*, used in dilating of Sinuous Ulcers,

*Superfetation*, à *superfeto*, to conceive again, or before the Delivery of the first Young, already impregnating the Female; but here meant of Nature's Luxuriancy in some Vegetable Productions.

*Supination*, that Position of the Arm, whereby the Palm of the Hand is turned upwards, contrary to the *Pronation*.

*Suppuration*, à *suppuro*, to ripen, ex *sub*, & *pus*, quod in *purem convertitur humor*, the Ripening of a

Tumour, or bringing it to Matter; the same with *Maturation*.

*Sutura*, the first of the Species of Articulation, under *Synarthrosis*, belonging to the Bones of the *Cranium*; being a Sort of Indenture, from the Points or Teeth interchangably entering one another on either Side; of which the chief are the *Coronalis*, *Sagittalis*, & *Lambdoides*; the first so nam'd from its encompassing the Head like a Crown; the second from its running lengthways, like a Dart over the Top of the Head; and the last from its Resemblance to the Greek  $\Lambda$  behind on the *Occiput*.

*Sutura*, à *suo*, to stitch or sow together, the Sowing up of Wounds in order to their *Symphysis*, or Union by the first Intention; of which there are two principal, the Interrupted and Continued.

*Sutura sicca*, the dry Stitch, perform'd by Cloaths spread over with some Emplastick Medicine, and being laid on the Parts, so soon as they are dry'd on, passing a Needle through the Edge or Selvedge thereof, instead of the Skin or Flesh.

*Symmetry*, ex *συν*, cum, & *μετρον*, mensura, a due Proportion of all Parts making up the Whole; an exact Harmony or Agreement one with the other, in their Figure and Situation.

*Sympathic*, à *συμπάχω*, compatior, a Suffering by Sympathy, or Consent one Part with another, a Fellow-feeling, as we say comonly.

*Synarthrosis*, à *συν*, cum, & *ἄρθρον*, articulus, that Articulation of the Bones joined by some Medium, and not intended for manifest Motion.

*Synchondrosis*, ex *συν*, & *χόνδρος*, cartilago, a Joining of Bones together by a Cartilage; as in the Ribs with the *Sternum*.

*Synco-*

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*Syncope*, à συνκοπή, *concido*, a falling down suddenly, or dying away, a fainting Fit.

*Syndromia*, συνδρομή, *Concursus*, a Train of Symptoms, concomitant, or attending upon the same Disorder.

*Synemesis*, à συν, cum, & ἑνὴν *Membrana*, a Conjunction of Bones by a Membrane, as in the *Fetus*, those of the Front or Forehead with the *Sinciput*.

*Synovia*, forte à συν, & οὖον, the Humour flowing from Wounds or Ulcers in the Joints, or among the tendinous and nervous Parts; by its congealing instantly over the Flame of a Candle, or Heat of the Fire, conjectur'd to be a *succus nutritius* dripping therefrom.

*Synsensis*, à συν, cum, & τέρας, *tendo*, Conjunction by Means of Tendons.

*Sysarcosis*, à συν, & σάρξ, *caro*, a joining by the Help of Flesh.

*System*, à συν, cum, & σῶμα, *flo*, the whole Body of a Science, or the several Parts thereof connected.

*Systole*, Gr. συστολή, *contractio*, meaning that of the Heart and its Arteries; the contrary to *Diastrale*, or Dilatation.

## T.

**T***Abes*, à tabesco, to pine away or dissolve; a Consumption of the Body; the same with *Marasmus*.

*Talpa*, an incysted Tumour of the Scalp.

*Talus*, the same with *Astragalus*.

*Tantalus*, whom the Poets feign, as a Punishment, to have been so placed in Water up to the Chin, with Fruit bobbing against his Lips; yet so as that it was not in his Power to stoop to quench his Thirst with the one, nor to catch the other, for Relief of his Hunger.

*Taraxis*, à ταρασσω, *turbo*, a Disease of the Eye, of kin to *Ophthalmia*.

*Terebellum*, quasi parvum *Terebrum*, a Gimlet or small Peircer, used by Surgeons for perforating the Bones.

*Tegument*, à tego, to cover, the Skin with the other Membranes investing the outer Parts of the Body.

*Temperamentum*, à tempero, to mix or mingle together; referring here to every Man's particular Constitution or Temperament.

*Temperies*, a Temper, or Mean, as to Heat, Cold, &c. in such Temperament; a well constituted habit of Body.

*Tenesmus*, à tento, to try; a troublesome Endeavour to go to Stool, without voiding any thing unless *Mucus*, recurring frequently through Irritation of the Sphincter, from a sharp and stimulating Matter issuing out of the Glandules of the Guts, after *Dysenteries*, and other Fluxes of the Bowels, of long Continuance.

*Tention*, à tendo, to stretch; a Distention of the membranous Parts through an Afflux of Humour.

*Teredo*, a Worm that eats into Wood, in Greek τερνιδω taken metaphorically for a *Caries*, or Rottenness in the Bones, appearing in like manner as if Worm-eaten, by the corrosive Humour preying upon, and altering their outward Frame or Texture.

*Teres*, the Ligament tying the Head of the Thigh Bone to the Cup or *Acetabulum* in the *Coxendix*, so called from its even, round, and slender Figure.

*Testaceous*, ex *Testa*, a Shell; any of those shelly Substances or Grits, called *Absorbent*, from their Faculty of destroying sharp Juices. See *Absorbent*, also *Alkaline*.

*Testis*, signifying a Witness; figuratively apply'd to the Stones, *quod resistuntur esse virum*, according to some, *Theoria*,



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*Theoria*, à θεωρεῖν, *contemplor*, the speculative Part of any Art or Science, called *Theory*, in Distinction of the *practical* Part thereof. See *Speculative*.

*Therapeutic*, à θεραπεύω, *sano*, that part of Physick teaching the Cure of Diseases.

*Thyreoides*, ex θυρεός, *scutum*, & θυρεοειδής, *forma*, a Cartilage of the Wind-pipe, so named from its Shape, like an ancient Shield or Buckler, called otherwise *Scutiformis*.

*Thyreothyroideus*, ex θυρεός, *scutum*, ἀρούρω, *aerem haurio*, ἀνοίγω, *aperio*, & θυρεοειδής, *forma*, a pair of Muscles proceeding from the Cartilage before-mentioned, serving to contract the opening of the *Aspera Arteria*, or Wind-pipe; concerning which see *Aretenoides*.

*Tonic*, à τείνω, *intendo*, the proper inherent Power of Contraction and Extention of the muscular Fibres, their Spring or elastic Force, to extend and draw themselves back again.

*Topic*, à τόπος, *locus*, an external Application to the Parts.

*Torrefy'd*, à torreo, any thing dry'd before the Fire, in order to pulverise, or reduce to Powder; more commonly apply'd in physical Prescription, to the Root of *Rhubarb*, first cut into thin Slices, and after torrefy'd.

*Toxic*, *Toxicum*, Gr. τοξικόν, *quasi* *taxicum*, à τὰ τοξικά, *Arbore*: vel à τὸ ξόν, *arcus*, *quia sagitti soluti sunt veneno perungere*; a Term, it seems, borrow'd from the poisoning of Weapons, and, with us, understood of any Venom or Poison whatever. See *Deleterious*.

*Traumatic*, à τραῦμα, *vulnus*, vel α τραυματίζω, *vulnero*, Remedies for wounded Persons.

*Tremor*, à tremo, any trembling or shaking whatever, particularly that attending the *Paralysis*, also malig-

nant Fevers; which, together with the *Subsultus*, portend very often, in these last Cases, approaching Death.

*Tubercula*, i. e. *Tuber parvus*, any Bump or Knob rising in the Skin or Flesh underneath, sprouting like an Excreescence, such as *Pimples*, *Warts*, &c.

*Tubuli*, a diminutive from *Tubus*, a little conduit Pipe, conveying Water from a Fountain hard by; with us figuratively taken for the blood Vessels, both Veins and Arteries, carrying their Liquor to and from the Heart; the small Branches also of the *Lympheducts*, and of the Nerves themselves, are often called by the same Name.

*Tunic*, à tunico, the same with Tegument; but farther apply'd as to the Vessels themselves, and viscera contained under the latter or outer Teguments, and cloathing or investing the same.

*Tumor*, à tumeo, any swelling whatsoever.

*Tympanites*, a swelling of the Belly; so called for that the Membranes of the Belly, are so expanded and stretched out by a flatulent or windy Disturbance, as that being struck upon, it sounds like a Drum, called in Latin *Tympanum*.

*Tympanum*, the Membrane expanded over the *meatus auditorius*, or Passage of Hearing; from its Likeness to that over the Drum-head, inservient to the Conveyance of Sounds to the *Sensorium*, so denominated.

*Tyro*, a Novice in the Art, a young Beginner.

V.

*Vagina*, a Case or Sheath, here meant of the Passage leading from the *Pudendum* to the Neck of the Womb.

*Vaginalis*, ex *Vagina*, any thing that encloses some other Parts; here particularly applied to the outward pro-

per

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per Coat of the Testis, or which encompasseth the same.

*Valetudinary, qui adversa valetudine laboras*, a sickly Person, one of an infirm State.

*Varicocele, idem quod Hernia varicosa*, a Rupture of the spermatic Vessels, or the same by some distemperature of the Blood, or in the Vessels themselves, become *varicous*.

*Varicosum corpus*. See *Pampiniforme*.

*Varix, à varus, i.e. obtortus*, by the Surgeons understood of those black, knotty, distorted and swell'd Veins, observable more especially on the Legs of certain Persons, distended with a gross and fæculent Blood.

*Varolous, ex variolis*, of or belonging to the Small-Pox, or rather the Fever accompanying that Distemper.

*Vectis, à vebo, quod super eos, pondera vehebantur & elewantur, à Teaver*, unto which the Muscles of our Bodies are aptly compar'd, for their Office and Use in lifting and moving others besides their own.

*Vehiculum, à vebo*, to carry or convey in some Machine, as Coach or Waggon, from one Place to another.

Among Prescribers of Physic to the Apothecary, it denotes any Liquor in which to dissolve a Powder, or Bolus, for its easier and cleaner Conveyance to the Stomach.

*Venasection, ex vena, & seco*, the same with *Phlebotomy*.

*Verminous, ex vermis*, a Worm, a Fever so termed thence arising; also an Ulcer, from its peculiar Putrefaction fostering those Creatures.

*Vestige, Vestigium, ex vi, & stigo*, Gr. *σῆμα*, a Mark or Impress, like that left by a Foot in Snow or Clay, or the Seal on Wax; but here meant of the Remains of some former Distemper, by which to discover the same had preceeded, as the Pits of the Small-Pox, the Seam or Scar, left after a Wound or Ulcer.

*Vibration, à vibro*, to shake; usually ascribed to the Motion of a *Pendulum*, but here intended with that of the Heart; the same with *Pulsation*.

X.

*Xyphoides, à ἔξω, ensis, & ἐξω, forma*. See *Ensisformis*.

### F I N I S.

## ERRATA. Vol. 2. Sect. 6.

**P** Age 2. line 11. read *ichorous*, p. 4. l. 6. r. *as for*. p. 7. l. 22. r. *Stranguria*. p. 18. l. 25. r. *digested*. p. 22. l. 27. r. *as at*. p. 23. l. 15. r. *3ij*. p. 25. l. 1. r. *viscid*. p. 29. l. 6. r. *pituitous*. p. 36. l. penult. for *cur*, r. *cum*. p. 37. l. penult. for *those*, r. *these*. p. 38. l. 9. r. *Ungt. e Petro*. p. 62. l. 8. for *all*, r. *of*. p. 63. l. penult. for *cochl. iv*. r. *3iv*. p. 76. l. 10. r. *Gentleman*. p. 79. l. 26. r. *Buttock*. p. 81. l. 27. for *he*, r. *the*. p. 83. l. 2. r. *Muscles*. Sect. 7. Page 123. l. 1. r. *Aneurism*. p. 139. l. 20. r. *Molecule*. p. 142. at the Bottom. r. *Conf. and Conf*. p. 152. l. 15. r. *have been*. *ibid*. l. 28. r. *Capital*. p. 168. l. 16. r. *Cleft*. p. 169. l. 13. r. *bowedness*. p. 176. l. 8. r. *inform*. Sect. 8. Page 180. l. 2. for *then*, r. *than*. p. 192. at the Bottom, for *Box*, r. *Bore*. p. 200. l. 8. r. *rugine*. Sect. 9. Page 234. l. 21. r. *Raphe*. p. 243. l. 27. r. *terminate*. p. 246. l. 2. r. *joins*. p. 247. l. 23. r. *Operations*. p. 249. l. 3. r. *cachectic*. p. 250. l. 25. r. *Coracoides*. p. 254. l. 16. r. *Scrobiculum*. p. 269. l. 6. for *the*, r. *that*. *ibid*. l. 9. for *that*, r. *the*. p. 289. l. 2. dele the second *And*. p. 354. l. 8. r. *Electuary*. p. 364. l. 26. r. *Situm*. p. 368. l. 21. for *over*, r. *of*.